Focus

Global Financial Income Tax

Tax Base Halved to Shock Investors

Nation & Economy

2013 Economic Outlook

Strong Won Expected to Continue in 2013

Special Report

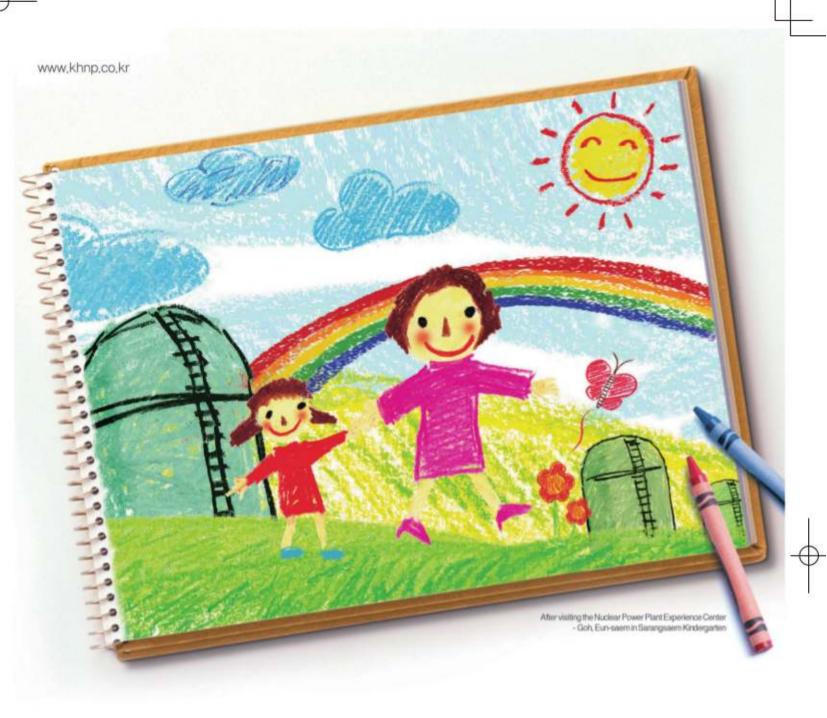
Nuclear Energy Overview Still Important Paradigm for Growth

BUSINESSKOREA

JANUARY 2013 / VOL. 31 No. 336 Economic Democratizat President-elect Park Geun-hy Putting Her Pledge Aside in Fear of Economic Recession?







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To Our Readers



The global currency war is heating up as major economies such as the United States and Japan devalue their currencies through unlimited quantitative easing(QE) for the purpose of economic stimulation.

The US launched its third QE program in September last year, resulting in a huge amount of dollars in emerging nations and putting increasing pressure on the Korean won. It is none other than Japan that is compounding the matter as of late. Its new Prime Minister, Shinzo Abe declared limitless QE and a weak yen

upon taking office. In the 40 or so days since his inauguration, the yen-dollar exchange rate has soared from 77 yen to 90 yen per US dollar.

The success of what is called Abenomics is still up in the air, though. Even in Japan, more than a few people are casting doubts over the policy and concerned about possible side effects including a decrease in the government bond price and a higher interest rate, ultimately increasing the risk of fiscal distress and economic depression. Considering Japan has the largest national debt of all advanced economies, failure of Abenomics could put Japan on a downward spiral of regressive conservatism.

Meanwhile, the international community is sounding an alarm on its part, too. IMF head Christine Lagarde recently stated her strong opposition to Japan's attempt to revive the economy at the sacrifice of neighboring countries by devaluing its currency. The US auto industry is also mulling over counter measures to cope with a super weak yen.

The US and Europe are, however, in no position to criticize Japan since they are the very ones that triggered the global financial crisis and resorted to QE to save themselves. Under such circumstances, Korea has no option but to accept a weak yen.

The situation is not entirely bleak however, although the trend is likely to compromise the competitiveness of Korean exporters in various industries, such as auto and machinery. Many industry experts are predicting that an increasing number of major Korean export items will be free from price competition with their Japanese counterparts after successfully distinguishing themselves in the global market, thus dodging the effect of a depreciation of

As such, Korea would be well advised to focus on the management of hot money that could flow in amid quantitative easing, while keeping a close watch on foreign exchange movements rather than overestimating or being daunted by the negative effects of a yen devaluation.

Economists are warning that the country, engrossed in the handover of power, might lose its focus on macroeconomic policy and emergency response to the current foreign exchange situation. The Presidential Transition Committee and the incumbent administration must use their wisdom to prepare countermeasures.

Park Jung-hwan,

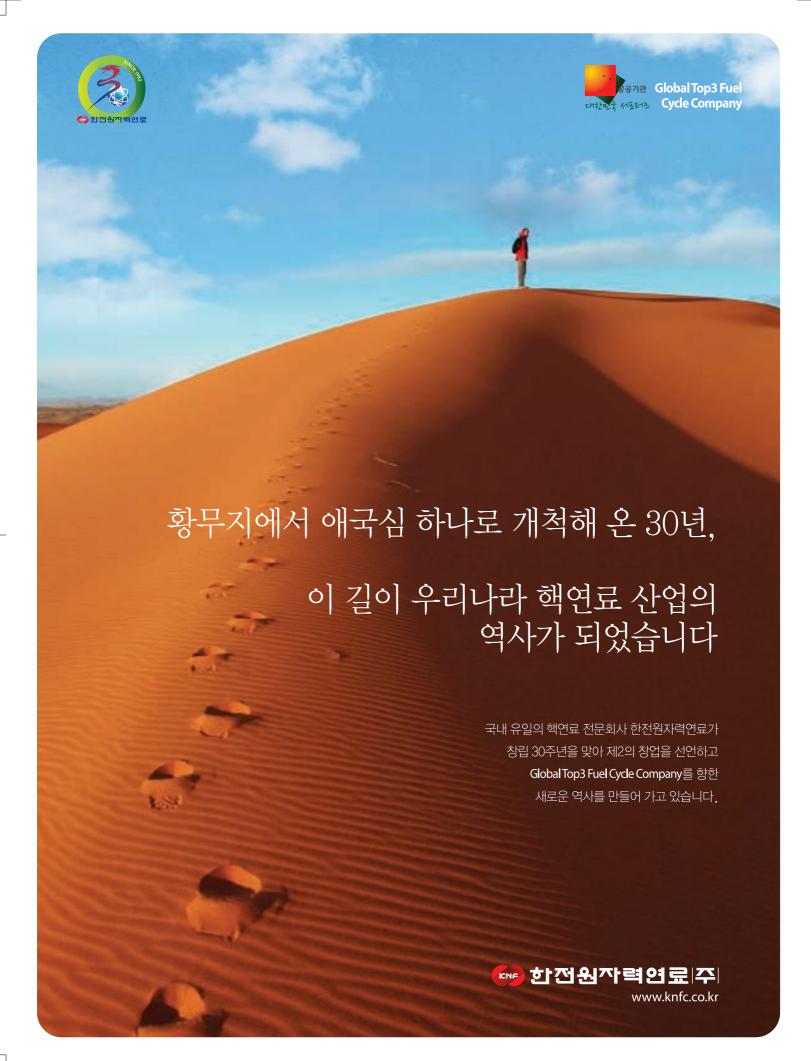
Publisher & Editor-in-Chief



















NATION & POLITICS

North Korea Bashes the UN Resolution

North Korea on January 23 vowed to boost its nuclear arsenal, evidently irked by the UN Security Council's unanimous adoption of more sanctions against the renegade country.

"We will take measures to boost and strengthen our defensive military power including nuclear deterrence," the North Korean Foreign Ministry said according to the official KCNA news agency.

The comments came just hours after the UN Security Council unanimously condemned the North's rocket launch in December and expanded existing sanctions.

The North also said there will be no more denuclearization talks. "Due to the U.S.'s worsening hostility toward North Korea, the six-party talks and the joint September 19 statement were

rendered null."

"There can be talks for peace and stability of the Korean Peninsula and the region in the future, but no talks for the denuclearization of the peninsula," it added.

The UN sanctions came 42 days after North Korea launched a long-range rocket and mark the first punitive steps against Pyongyang since its leader Kim Jong-un took power.

Xi Jinping' Calls for Denuclearization of the Korean Peninsula

Chinese president-in waiting Xi Jinping's support for denuclearization of the Korean Peninsula on January 23 will put "considerable pressure" on North Korea, according to a diplomatic source in Beijing.

Chinese Foreign Ministry spokesmen frequently call for denuclearization and non-proliferation of weapons of mass destruction on the Korean Peninsula, but the pressure will be much greater now that China's leader has directly expressed his commitment.

North Korea reacted with predictable fury to a UN Security Council resolution the same day condemning its recent rocket launch and expanding sanctions.

"For North Korea, China's consent to additional sanctions will be very disappointing," the source added.
"But given its dependency on Beijing,
Pyongyang will not be able to ignore
Xi's remark completely and go ahead
with another nuclear test."

Chinese Foreign Ministry spokesman Hong Lei on January 23 called for a resumption of the six-party denuclearization talks, even though North Korea thundered there would be no more talks about abandoning its nuclear program.

But China is unlikely to seek another channel to put pressure on North Korea. The Chinese Foreign Ministry described the UNSC resolution as "balanced" but also in a familiar phrase called for "calm and restraint" from neighboring countries.

Xi made his remarks in a meeting with envoys for South Korean president-elect Park Geun-hye, who also met other officials in Beijing. They included senior apparatchik Wang Jiarui, a key person in dealing with North Korea.

Final Rocket Launch to Be Attempted Late This Month

Korea will make a third and final attempt to launch the home-grown space rocket Naro again between Jan. 30 and Feb. 8. The Ministry of Education, Science and Technology set the new window on January 16.

Weather permitting, Jan. 30 is the likeliest launch date, between 3:55 p.m. and 7:30 p.m. The final decision will be made based on the weather on the day, the ministry said.

The launch was originally scheduled for Oct. 26 last year but aborted due to a problem with the seal in the connector between the Russian-made first-stage booster and the launch pad. It was rescheduled for Nov. 29 but again called off at the last minute when a glitch was found in the second-stage booster.

The Korea Aerospace Research Institute has replaced components, and Korean and Russian engineers will connect the Russian-made first-stage booster with the Korean-made second-stage booster this week. A launch rehearsal is planned for next week.



Kim Moo-sung (left), special envoy of president-elect Park Geun-hye, shakes hands with China's president-in-waiting Xi Jinping after handing over a letter from Park to Xi during their meeting at the Great Hall of the People in Beijing on January 23.









Dismissing worries about the aged solid fuel for the second-stage booster, which was produced in 2008, a KARI researcher said, "We've even conducted a combustion test with solid fuel made another five months earlier and found no problem."

Seoul to Get New Street Signs in Four Languages

Street signs in Seoul will be in four languages and feature a unified design, the Seoul Metropolitan Government said on January 9. That will mean replacing 144,134 street signs in the city by 2016.

The city said it will also standardize foreign words used to describe different administrative areas, natural sites, traffic signs and cultural and sports facilities.

The first 80,000 signs to be replaced will be in Myeong-dong, Jongno, Dongdaemun, Jamsil and Itaewon, which are the five special tourism zones, as well as the popular tourist attractions of Bukchon Hanok Village and Namsan Park.

Largest-Ever Chinese Tour Group to Visit Korea Next Year

A group of 25,000 Chinese tourists will visit Korea next year, making the largest tour group to ever visit the country. It is twice the size of the previous record of 11,000 people sent by the health product firm Bao Jian Com-

modity in September 2011.

The Korea Tourism Organization said on January 15 the Chinese branch of multinational direct-selling company Amway decided to send its distributors here to reward them for their good performances. It previously sent groups of around 10,000 top performers to Australia, Taiwan and the U.S.

They will be divided into eight subgroups of 3,200 people, each of which will arrive on large cruise ships and make tours of Busan, Jeju and Yeosu for six days in May and June next year.

Amway China initially planned to include Japan as part of the travel itineraries but changed its mind amid an ongoing territorial dispute over uninhabited islands between China and Japan.

Chinese Tourists Stirs Up Construction Boom on Jeju Island

An increasing number of accommodation facilities are being built in Jeju with an influx of visitors to the resort island.

According to the provincial government on January 23, 91 luxury accommodation facilities with a total of 6,235 rooms received the green light for construction there last year. This was up three-fold from a year earlier, when only 28 such facilities were approved. Small inns and B&Bs were not counted.

The construction boom is attributable to a surge in demand for accommodation facilities as Jeju had over 9.7 million visitors in 2012, including 1.08 million Chinese.

Hotel rooms reserved for Chinese tour groups are already fully booked until August.

Korea Ranked 19th Best Country to Be Born in

Korea has been ranked the 19th best country for babies to be born in by the Economist Intelligence Unit, a think tank affiliated with the business magazine

The think tank ranked 80 countries. Korea scored 7.25 points ahead of

Japan in 25th (7.08 points), France in 26th (7.04 points) and China in 49th (5.99 points).

Germany and the U.S. shared 16th place with 7.38 points.

The 11 categories of the ranking were geography, demography, social and cultural characteristics, public policy, gender equality, political freedom, health, job security, violent crime rates, the state of the world economy, and future income projected for 2030.

Switzerland came first, followed by Australia, Norway, Sweden and Denmark.

But some of the wealthier countries such as the U.S., Germany, Japan, and the U.K. failed to make the top 10. China, the world's second largest economy, is way below economically struggling European countries like Italy, Spain and Greece, which ranked 21st, 28th, and 34th places.

Nigeria was the worst country to be born in out of the 80 included in the ranking.

ECONOMY

BOK Cuts This Year's Growth Outlook to 2.8%

The Bank of Korea said on Friday it expects the domestic economy to grow just 2.8 percent this year, revising down its previous forecast of 3.2 percent. This is also lower than the government's projection of 3 percent.

The central bank's forecast reflects the slow recovery seen in the global economy, particularly in the eurozone. Uncertainty also remains in the United States over its borrowing capacity.

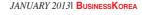
However, the central bank appears to be more optimistic about next year, when it forecasts the Korean economy will grow 3.8 percent.

Job Growth Slows Down Drastically in December

Only 270,000 more people had jobs in Korea in December than a year earlier, Statistics Korea said Wednesday. That was the first time since Septem-











ber 2011 that job growth fell below 300,000.

Every year the working-age population aged 15-63 increases by around 500,000 and the government considers a growth of 300,000 jobs the breakeven point compared to the previous year's level.

Government officials are concerned about a slowdown in the growth of jobs. In September of last year, there were 680,000 more jobs than a year earlier, but that fell to 390,000 in October and 350,000 in November.

Kim Beom-suk at the Ministry of Strategy and Finance blamed a slump in the construction industry. "The temporary labor market was hit particularly hard by the cold spell last month," he said.

Experts say the high job growth of 530,000 in January last year could end up making job growth figures this month look relatively poor.

Labor Productivity Declines

Korea's labor productivity suffered the second-largest decline among OECD countries during the third quarter.

According to an OECD report on January 6, the country's labor productivity from July to September dropped 0.4 percent on-quarter. Only Norway experienced a larger decline of 1.3 percent. Among the 22 countries measured, just six saw their rates fall.

Labor productivity is measured by dividing industrial output by labor input, indicating per-capita output over a given period.

An analyst from Woori Investment and Securities said the decline is mainly due to the contracting economy in the latter half of 2012.

Foreign Investment Hits New High in 2012

Foreign direct investment in Korea



surged to a record high in 2012. According to the Ministry of Knowledge Economy, investment from China grew more than doubled last year.

The total amount of new FDI in the country last year rose almost 20 percent from 2011 to stand at US\$16.2 billion.

Ministry officials attribute the growth to greater confidence in the Korean economy after a rise in the nation's credit ratings and the implementation of free trade agreements with the U.S. and the European Union.

Per-Capita GDP Stands at US\$22,700

Due to the sluggish economy, the country's per-capita gross domestic product is estimated to inch up only marginally compared to last year.

Per-capita GDP is expected to stand at US\$22,700, up 1.3 percent from 2011, based on a report by the Korea Investment and Securities Company.

The report cited low inflation and the overall weakness of the won against the U.S. dollar for the slow growth.

Korea's per-capita GDP surpassed the US\$20,000 mark for the first time in 2007 but fell below for two years following the 2008 global financial crisis.

Wage Increases Lag behind Soaring Corporate Profits

Wages have increased far more slowly than corporate profits, which

is cited as one of the reasons for the slowdown in consumer spending.

The Bank of Korea in a report on January 14 said wages increased 11.7 percent on average per year in the 1990s, just 1.1 percentage points lower than the annual growth in corporate profits. But since 2000, wages have increased only 7.2 percent a year on average, a full three percentage points behind corporate profit growth.

The share of the nation's gross national income that goes to households has therefore dwindled. As of 2011, household income accounted for just 61.6 percent of GNI, down a whopping 8.9 percentage points since 1995.

The trend is global, but much more marked in Korea than elsewhere. OECD member countries saw an average decline of 4.1 percentage points in households' share of GNI to 69 percent.

The slowdown in household income translates into lackluster consumption. Consumer spending accounts for 59.8 percent of Korea's GDP as of 2011, far below the average 68.5 percent in the OECD. "Households spend almost 98 percent of their incomes on private consumption, but the overall amount is small due to households' paltry share of GNI," the BOK said.

BUSINESS

Businesses Get More Pessimistic about Near Future

Manufacturers take a dim view of the first quarter of this year, with the business survey index plunging to 87 from 95 for the fourth quarter of last year, according to the Ministry of Knowledge Economy on January 20.

The index was compiled by surveying 501 companies.

Most sectors including iron and steel and shipbuilding are expected to perform poorly. Many executives worry seriously that sales, domestic consumption, exports and household income will deteriorate.

Only precision machinery and semiconductor makers were slightly optimistic.







Exports Expected to Regain Momentum

Despite gloomy forecasts for the economy, the government expects exports to regain momentum this year.

The Ministry of Knowledge Economy said on January 1 that exports would rise about 4 percent to US\$570 billion, and imports by a larger margin of 5 percent to US\$546 billion.

The ministry expects the IT and machinery industries to do especially well despite the eurozone fiscal crisis dragging on.

Exports slipped 1.3 percent last year to US\$548 billion while imports shrank 0.9 percent to nearly US\$520 billion.

One of Ten Cars in Seoul Is Imported

One in every 10 vehicles registered in Seoul is an imported car. A total of 1.91, million cars were registered in Seoul as of late last year, according to the Ministry of Land, Transport and Maritime Affairs, and 9.4 percent were imports, up 1.1 percentage points from the previous year.

The city with the second biggest proportion of foreign cars was Busan with 8.4 percent. North Gyeongsang Province and Ulsan had the smallest at 2 percent and 2.1 percent.

A total of 11.07 million passenger cars were registered across the country, and 5.5 percent were imports, up from 4.7 percent a year earlier.

BMWs topped the list of imported cars with about 130,000. Next came Mercedes with some 110,000. In other words, one in every three foreign vehicles on the road is a BMW or Mercedes.

Number of Inbound and Outbound Travelers Surpasses 50 Million

The number of people traveling in and out of the country last year surpassed 50 million for the first time. The justice ministry said the final tally came to around 50.3 million, up nearly

11 percent from 2011.

The figure includes 28 million locals and around 22 million foreigners. Some 3.5 million Japanese nationals visited Korea last year, followed by 2.5 million Chinese.

The ministry said the surging popularity of Korean pop culture led to the sharp rise in the number of visitors. Streamlined procedures to issue visas for Chinese citizens also played a role.

Korea's Leading Export Items Dwindle

The number of leading Korean export items has declined, raising serious concerns for the competitiveness of key products sold overseas.

According to the Institute for International Trade, the number of Korean exports that led the global market dwindled from 71 in 2010 to 61 in 2011. The number peaked at 73 in 2009.

In contrast, China's leading exports grew from 1,353 to 1,431 over the same period to put it at the top, followed by Germany (777), the U.S. (589), Italy (230) and Japan (229).) Korea ranked 15th although it is the world's seventh-largest exporter, meaning it depends on a relatively small number of products.

The data is based on the UN HS code system of classification, which breaks them down into 5,051 categories.

Advanced countries like the U.S. and Japan saw the number of leading exports drop, while newly emerging countries such as China and Indonesia posted growth.

Over 8 Million Korean Cars Sold in 2012

The global annual car sales of the five Korean automakers topped 8 million for the first time. According to a report released on January 2, they sold a combined total of 8.2 million cars at home and abroad last year, up 5.6 percent from the previous record of 7.76 million in 2011.

Domestic car sales dwindled a little, but an increase in exports accounted

for the rise.

Hyundai sold 4.4 million cars globally, up 8.6 percent from the previous year -- 660,000 units here, down 2.3 percent on-year, but 3.73 million abroad, up 10.9 percent. It sold more than 500,000 units each of the Avante, Accent, Tucson, and Sonata.

Kia sold 2.71 million vehicles, up 7.1 percent from the previous year. Its bestseller was the Pride with 380,000 units. It also sold more than 300,000 Sportages, K3s and K5s.

GM Korea sold 800,000 cars in the domestic market, the best record since the firm was established in 2002, but its overall sales dropped 0.9 percent as exports dwindled.

Renault Samsung's sales plummeted to a mere 150,000 units, down 37.5 percent on-year. Ssangyong sold 120,000 vehicles, up 6.2 percent.

Hyundai-Kia Cars Top U.S. Market for 2nd Straight Month

Hyundai and Kia signed off on 2012 on a strong note in the U.S. as they together outsold all other brands in the mid-sized sedan category last month.

Industry data showed that the two affiliated carmakers sold nearly 33,000 mid-sized sedans in the U.S. in December, relegating long-time No. 1 player Toyota to second place for the second straight month.

Sources say improved quality and a more diverse line-up were behind Hyundai and Kia's robust performance. @









GLOBAL FINANCIAL INCOME TAX

Tax Base Halved to Shock Investors

The number of those subject to the taxation quadrupled to approximately 200,000, with these now busy adjusting their investment portfolio to avoid tax



Better-off investors in Korea were stunned at the very beginning of the year as the tax base for global financial income tax was adjusted downward from 40 million to 20 million won. From this year, pretax financial income, such as interest and dividend income, of over 20 million won must be reported to authorities, along with other earnings for consolidated income tax.

Under such circumstances, the private banking centers of local banks are being swamped with inquires. "A huge number of customers are asking us to reorganize their investment portfolio," said a private banking manager.

Here is an example. If you have

1.3 billion won of assets in a savings account with an annual interest rate of 3%, approximately 39 million won accrues in interest and you now have to pay tax on the amount exceeding 20 million won, although you were not subject to the global financial income tax until last year. If you have at least 0.7 billion won in such a savings account, the tax is imposed under the new system.

At the same time, the burden on those who already paid the tax has increased. "Those who were subject to the highest global income tax rate of 38% are expected to pay up to 5.28 million won more than before," said

Kookmin Bank tax accountant Won Jong-hoon.

Once classified as a global financial income tax payer, he or she has to shoulder an additional tax burden, such as payment of the National Health Insurance premium. Those who did not pay the premium as a dependent must pay it once subject to the taxation.

"The National Health Insurance premium is determined in view of one's financial income, etc." said Park Gukje, private banking manager at Woori Bank, adding, "The premium could increase by 200,000 to 300,000 won a month for those newly classified as a global financial income tax payer."

Tax Revenue Expected to Increase 300 Billion won a Year

According to the Strategy and Finance Committee of the National Assembly, the number of such tax-payers has increased from 50,000 to approximately 200,000 following adjustment of the criteria and will help generate 300 billion won more in tax revenues every year.

However, some experts claim the revision will result in little revenue raising effect due to the current low interest trend which has persisted since the global financial crisis in 2008. Furthermore, The Bank of Korea stated on January 11 that it would maintain the key rate at 2.7%, with market insiders betting on the possibility of another reduction in the base rate. Given the situation, any effect brought about by



an increase in the number of tax bear-

ers is likely to be limited at best.

The number of global financial income tax payers, in fact, skyrocketed in 2006 and 2007, when the country's economic growth rate topped 5%, yet has plummeted since the financial turmoil. According to the National Tax Service, the number had totaled 61,475 in 2007, but fell to 48,907 in 2010. This 20% or so decline can be attributed to the economic slowdown and low interest rate during the period.

There are some voices that claim strengthening the tax base in current economic difficulties could backfire down the road. An analyst at a government agency commented, "Tax reform for revenue increase should be made when the economy turns around."

The consensus among economists is that the new tax regime will have a larger-than-expected impact across the country. The global taxation on financial income in question here can be defined as a progressive taxation on an individual's total annual financial income when exceeding 20 million won. The excess income is added to his or her global income and a composite income tax rate of between 6% and 38% is applied. Including local income tax, the maximum tax rate reaches 41.8%. Assuming an interest rate of 4%, only bank deposits worth one billion won or more were subject to the taxation. However, in short, this minimum amount will be halved this year.

Investors' focus is shifting from the rate of return to how to avoid taxes. In other words, an investment product that guarantees a rate of return equivalent to the inflation rate, setting aside double-digit profits, is being considered as the most attractive financial investment

Popularity of Tax-sheltered Investment Options Soaring

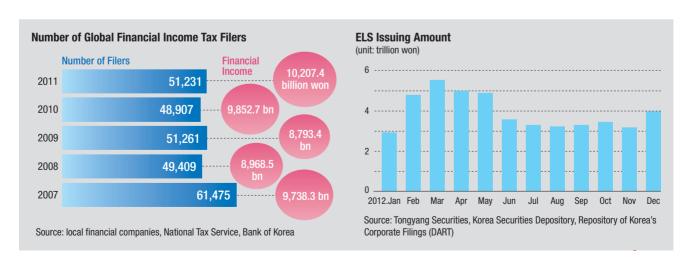
With the situation as it is, wealthy investors with 500 million won or more in financial assets are turning their attention to tax-saving products such as direct stock investment, tax-free funds, inflation-indexed government bonds and Brazil government bonds. Meanwhile, ELS products that provide profits on maturity date are being increasingly shunned whereas those offering earnings each month are increasing in popularity. "Stock-type funds and ETFs are also appealing more and more to investors," said Shin Ye-jin, a Korea Investment & Securities tax accountant, adding, "In contrast, ELS, whose maturity earnings are considered as dividend income subject to the global financial income tax, are losing their appeal among investors."

"One of the investment options taking the biggest hit under the new system is ELS," a local private banker agreed, "in particular, those who have 300 million to 500 million won in assets are reducing the ratio of ELS investment in their portfolio."

According to the Strategy and Finance Committee of the National Assembly, the number of such taxpavers has increased from 50.000 to approximately 200.000 following adjustment of the criteria and will help generate 300 billion won more in tax revenues every year

Nevertheless, the popularity of ELS products that pay earnings each month is on the rise. Since financial income is given on a monthly basis, such products can lead to some tax avoidance effect. The number of such products has increased conspicuously since August last year, when the tax law was revised.

"ELS have a definite advantage in terms of the after-tax interest rate," said Yoo Jik-yul, who heads the Gangnam Samsung Town branch of Samsung Securities, "The total ELS sales volume has not dipped so much as the sales of monthly payment products have fared well." An executive at Hanwha Investment & Securities echoed this, saying, "Though monthly payment ELS and DLS have no tax avoidance effect themselves, the tax base can be split due to the payment of a monthly income dividend, which is more attractive for investors wanting to reduce their tax payment."











Nation & Economy

2013 ECONOMIC OUTLOOK

Strong Won Expected to Continue in 2013

The Won-dollar rate is predicted to reach 1,000 won, led mainly by quantitative easing in the United States and Japan, alleviation of the financial crisis in Europe, Korea's improved credit rating, and its annual current account surplus, etc

The won-dollar exchange rate fell in the latter half of last year, although the Korean won depreciated only a little from 1,108 won to 1,126 won per US dollar between 2011 and 2012. Although the rate reached 1,180 won in the first half of 2012 amid the eurozone financial crisis, it had dropped to 1,070 won by December 20.

The exchange rate declined especially quickly in September, when it touched the 1,100 won mark, led mainly by quantitative easing by the United States and Japan, alleviation of the financial crisis in Europe, and. The improved credit rating of Korea, its annual current account surplus, and expectations of economic recovery in China, also boosted appreciation.



Picture of a Korea Exchange Bank dealing room on December 10 showing the won-dollar rate when it fell below 1,080 won

Movement of Yen Drawing Keen Attention

The strong won trend is forecast to continue in 2013 as advanced economies continue with quantitative easing. The Federal Research Board (FRB) recently launched QE4 and Japan is expected to supply more liquidity to the global financial market this year. The Liberal Democratic Party recently reclaimed power and the Bank of Japan is scheduled to change hands in April. New Prime Minister Shinzo Abe also launched a QE program worth 10 trillion yen on December 20, immediately after his election victory.

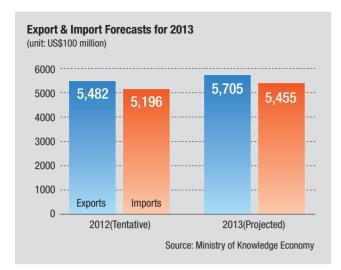
However, some experts are also mentioning depreciation factors. According to them, developed economies' QE has only a limited impact on the real economy, and that countries are likely to remain mired in slow growth in 2013. They are also predicting that emerging nations' growth will be restricted this year, and thus the liquidity rally will be rather short-lived.

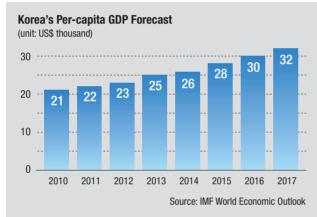
The US dollar is likely to depreciate some extent in the first half of 2013 due to the Federal Reserve's QE program, a weakened preference for risk-free assets with abundant liquidity from major economies, and concerns over the fiscal cliff, etc. Nevertheless, there is also the possibility of an appreciating US dollar, fueled by recovering housing and job markets. The recent economic turnaround in the US, which is quite contrary to Japan and Europe, is expected to buttress the dollar's climb. At the same time, its current account deficit is on the decline these days as oil imports continue to fall.

For now, the currency that merits the most attention is the yen, which is likely to get weaker following five years of appreciation. The Japanese government's decision to halt the operation of nuclear power plants will result in more energy imports, which, in turn, will lead to a continuing









trade deficit. Furthermore, economic recovery is likely to be far-off, with foreign direct investment expected to rise, thus further weakening the yen, to say nothing of the central bank's QE policy. Under such circumstances, the yen-dollar rate is estimated to top 90 yen per US dollar this year.

In the meantime, the value of the Korean won is expected to keep rising in 2012, building on the strong performance of its economy. Of course, the Korean economy has its own stumbling blocks, but it needs to be reminded that a foreign exchange rate is a relative concept. Korea is showing comparative advantages despite the global economic slowdown and fiscal turmoil, and both fiscal and foreign exchange conditions appear quite stable nowadays.

In particular, the large current account surplus has eased the concerns of many about growth potential and external vulnerabilities. The total surplus for this year is estimated at approximately US\$40 billion, while the service account balance is projected to be in the black for the first time in 14 years. The surplus in the income account balance is also on the rise.

Furthermore, Asian nations' solid economic growth is contributing to the appreciation of the won. The Asian continent was one of the few regions to show a positive growth

Financial Companies' Outlook on Won-dollar Exchange Rate for 2013 (unit: won)

Company	Q1	Q2
Barclays	1100	1075
JP Morgan	1125	1110
Credit Suisse	1104	1097
HSBC	1110	1100
Nomura	1115	1110
Citigroup	1134	1138
BNP Paribas	1080	1050

Source: Bloomberg

rate between 2011 and 2012, with Brazil, South Africa and many other emerging countries failing to do so. Asia, however, continued its rapid growth, and more than offsetting China's slowdown. With the exception of some countries such as India, most Asian nations are showing sound fiscal and current account conditions. In addition, their solid growth has doubled through intra-regional trade. Asia is now turning itself into the most attractive export market and capital investment destination for companies and investors.

Foreign exchange market conditions are also increasingly in favor of the won. Korea is expected to record a trade surplus of approximately US\$30 billion in 2013. Although the appreciating won could lead to some increase in the travel balance deficit, the trade balance is likely to remain in the black and overseas investment to increase, covering the service account balance. The capital account is expected to maintain the equilibrium as foreign investors continue purchasing Korean stocks, while bonds and domestic investors increase their investment abroad.

Weak Won Policy Needs to Be Revised by Incoming Government

At present, increasing attention is being paid to what the new government's foreign exchange policy will be. The incumbent administration's weak won policy cannot continue forever, yet a rapidly appreciating won is not the answer, either. However, strict regulations on foreign exchange volatility appear to be continuing. Both external and internal conditions are in favor of an appreciation of the won. Increased liquidity from major economies will accelerate the inflow of funds into Asia, while the Korean currency and assets based on it will enjoy a higher demand and reputation than before.

Even so, a drop in the exchange rate will be tempered by the recovery of the US economy and dollar, and a fall in the current account surplus following the appreciation of the won, etc. Though the currency appreciated the most against the euro in 2012, the won-yen exchange rate is likely to fall at the sharpest pace this year, with the yen weakening and the won strengthening.

JANUARY 2013 | BusinessKorea









INDUSTRY OUTLOOK FOR 2013

Rather Gloomy in General

Expectations are on the rise despite ongoing economic recession

It has been projected that the global economy will be able to make a rebound from the latter half of 2013, with the new governments of Korea, China and the United States expected to come up with simulation measures. At the same time, uncertainties in global stock markets are likely to go away down the road, reviving investment sentiment around the world.

Nevertheless, the picture is not entirely rosy. The Korea Chamber of Commerce & Industry (KCCI) recently published a report on the industrial outlook for the year, saying that the IT sector was the only area that achieved the highest rating among the 10 industrial sectors surveyed. However, none of the 10 received the lowest rating, implying that the majority of companies in the country are expecting to see the

current economic downturn come to an end this year.

"Expert' consensus is that the international economy will begin to make a turnaround in the second half of 2013 owing in part to expectations for these new administrations," said KCCI Managing Director Park Jong-gap, adding, "I'd like to ask the government to provide full support for companies' efforts to tide over the crisis by boosting the domestic economy and export side alike."

Korea Ratings' (President & CEO: David Insub Yoon) future economic outlook is not so bright, either. "Things don't look good across all industries and companies, like they did the previous year, and some are likely to have a tough time during the course of 2013," it said. What follows is the Korea Ratings' business outlook for 2013 by industry.













Construction

Although investment showed some signs of recovery in the construction segment, that in civil engineering continued declining last year to prolong the recession. However, some major builders succeeded in

offsetting their slump in the domestic market by means of overseas construction projects.

In 2012, the housing markets of non-metropolitan regions made little improvement to hinder the growth of the private construction sector, while the number of new orders in the public sector decreased due to the SOC budget cut and restrictions on new construction projects. Furthermore, overall investment in the sector dropped despite a slight increase in the construction segment. Meanwhile, overseas markets such as the Middle East are in a boom these days, led mainly by plant construction, unlike that of Korea which has been undergoing years of recession. Many local builders are trying to increase their overseas business ratios under these circumstances.

What is worrisome is that competition in the overseas markets is likely to heat up down the road, jeopardizing their profitability, with the metropolitan housing market failing to beat the slump and the public civil engineering sector having returned to the pre-crisis level. The government's SOC budget for 2013 increased 3.6% from a year earlier to 23.9 trillion, but taking inflation into account, the actual amount is similar to that before the global financial crisis of 2008. Besides, the portion for new construction projects is even smaller as the government is intending to focus on those that can be completed before the end of this year. Local governments and state-run enterprises, on their part, are feeling pressure due to the huge number of orders they placed in 2009, and finding little room for new investment.

Regional housing markets' recovery is expected to slow down as the number of unsold apartments has been on the rise since the latter half of 2012, with that of the metropolitan area also remaining high. Therefore, it may be right to say that the private real estate market won't see a turnaround in the near future.

In contrast, overseas construction has set a new record each year since 2008 in terms of the number of new contracts, and those projects are being reflected to builders' business showings one after another nowadays. The international oil price has topped US\$100 per barrel in spite of the global economic downturn, meaning the economic stagnation will have a limited effect at best on their overseas operations.

They would be well advised to prepare for some decrease in profitability, though, as more and more construction companies in Korea are trying to find opportunities overseas instead of the domestic market which remains in the doldrums.

- By Korea Ratings Analyst Sun Young-gui



Display

In 2012, demand fell short of expectations to slow down growth of the entire display industry, although it had been expected at the beginning of the year to make significant strides thanks to the

base effect of the previous year, the 2012 London Olympics, and the release of new IT products and high-end TVs. As LCD TV sets are in the stage of popularization in many countries, new products are failing to result in the creation of new demands like they had in the past during the replacement of CRT TVs with LCD TVs. Nonetheless, sluggish demand in the global TV market is likely to have been more than offset by the explosive growth of its smartphone and tablet PC counterparts and the high demand for and stable supply of display panels to the laptop industry. All in all, the display market is considered to have achieved some positive growth in 2012.

Demand and supply situations are forecast to change for the better this year and the gap between market leaders and followers is likely to widen. Demand for large-size LCD panels for TVs and monitors are expected to remain stagnant, whereas those of high performance for smartphones and tablet PCs will lead demand growth during the course of 2013. Leading display panel manufacturers are concentrating their investment on the conversion of existing TFT-LCD production lines into those of higher added value rather than building new production lines. Late comers, meanwhile, are refraining from new investment because of relatively poor performance and financial instability.

Both Samsung Display and LG Display are planning to turn part of their existing production lines into those for new technologies and products, such as low-temperature polysilicon (LTPS), oxide and OLED TV, which will lead to a higher ratio of high value added products and improved profitability. Conversion to the oxide and LTPS processes is estimated to reduce production capacity by 40% and 60%-70%, respectively, decreasing overall supply in the industry. The production yield decrease is expected to add to the capacity loss, with the annual display panel supply forecast to increase little compared to the previous year. The supply decline will have







uncertain demand forecasts.

a positive effect on demand and supply situations despite

Korean display panel manufacturers are providing more and more specialty products with better track records. They are poised to pull further ahead of their competitors thanks to favorable market conditions and technological superiority.

- By Korea Ratings Analyst Lee Ji-woong



Semiconductor

any people **L**anticipated that the semiconductor industry would make a rebound in 2012, but they were proven wrong. The DRAM segment had to go through a severe recession, eclipsing

the rapid growth of NAND flash, and has continued to shrink the entire market for two years in a row.

The memory semiconductor market is greatly influenced by shipments and prices like most manufacturing segments. Last year, both the rate of supply growth and the average selling price showed a downward trend, putting a brake on market expansion. Furthermore, memory chip manufacturers refrained from making new investments due to the double whammy, meaning that some adjustment on the supply side began from the latter half. Technological disparity between market leaders and followers, though, became more conspicuous, providing a silver lining to the former.

No explosive growth on the demand side seems to be on the horizon, but the supply adjustment is expected to result in somewhat better conditions with the restructuring of the industry having been almost completed. As the current economic recession lingers on, new IT devices are leading to less and less demand creation these days. The DRAM demand growth rate has dropped as consumers are changing their PCs less frequently and tablet PCs are encroaching upon the traditional PC market. However, NAND flash demand is projected to show some solid growth as an increasing number of portable devices adopt NAND flash memories.

Despite uncertainties on the demand side, less fierce competition among suppliers and supply volume adjustment will lead to more favorable demand and supply conditions. Unlike in the mid and late 2000s, when aggressive facility investment and a microfabrication race resulted in huge capital expenditures, memory chip makers are now rather conservative when it comes to capital investment, owing to years of supply glut and profitability decrease, as well as technological limitations following the development of microfabrication processes. Furthermore, many are avoiding excessive competition amid the reshaping of the market which is revolving around leading players.

For example, Korean semiconductor manufacturers that are dominating the global market are rarely planning for new investment or plant construction due to excess supply. The pace of microfabrication process refinement is slowing down along with the supply increase based on microfabrication. Instead, companies are focusing more on the improvement of production and process efficiency through repair and mainte-

- By Korea Ratings Analyst Lee Ji-woong



Petrochemical Industry

The global petrochemical industry, which began to decline in the second quarter of 2011, remained in recession throughout 2012. The story was not so different for China and

other Asian markets.

The recession in the sector can be attributed mainly to sluggish demand caused by the financial crises in the eurozone and the US. This turmoil has led emerging economies to tighten their purse strings, which, in turn has resulted in a demand reduction in the overall petrochemical sector. In China, the stagnation has been more conspicuous compounded by the aftereffect of its large-scale economic stimulation program. Both exports and investment have fallen, dragging down the economic growth rate along with demand for petrochemical goods, and this has delivered a staggering blow to Korean petrochemical companies highly dependent on the Chinese market.

The trend is likely to continue in 2013 despite major nations' pump-priming efforts yielding visible results. This is because concerns over the eurozone are still around, supply is forecast to rise due to facility expansion in China and the Middle East, and there being no sign of significant growth in demand in Asia.

Even so, some positive estimates emerged at the beginning of this year. China's purchasing managers' index (PMI), one of the most frequently quoted leading indicators, has been found to be over 50 for three consecutive months leading to December 2012, while the country's GDP growth rate for Q4 of the same year is estimated at 7.9%, higher than previous expectations. Adding to the positive news, China's re-stocking demand and economic stimulation effect are making the outlook brighter, though temporarily, for the first half of this year.

Still, we should not forget that risks still exist. The possi-







bility is extremely low for the time being that China's domestic demand and an economic turnaround in major nations will coincide with each other. At the same time, Middle Eastern petrochemical companies are solidifying their presence in Asia, while the supply of naphtha substitutes such as shale gas, and China's capacity expansion for coal-based products, are picking up speed, making things tough for Korean petrochemical firms. With the situation as it is, they are unlikely to boost profitability or mark up their products for some meaningful improvement in terms of margin, though it may differ depending on business portfolio and structure. Furthermore, they should not overlook such negative factors as the strong won trend and petroleum price volatility.

- By Korea Ratings Analyst Song Jong-hyu



Automobiles

The global automobile market showed a wide gap in performance by region and company in 2012. In the domestic market, while Korean companies were in a slump recording a 4.3% decrease in sales

on a year-on-year basis, foreign companies sold 130,000 cars, a 24.6% increase from last year, and surpassing the 10% mark in their combined market share. In overseas markets, sales in Europe, the epicenter of the recent fiscal quake, fell 8% year-on-year.

However, car makers enjoyed a bullish market in the US and Japan, while emerging markets including China maintained their upward sales trend. Japanese makers seemed to come out of the setback in production caused by strong earthquakes in the nation's northeastern part, showing big improvement in sales and financial performance. Germany's Volkswagen and BMW made growth thanks to their successful market diversification. However, Fiat, PSA and Renault suffered sluggish sales due to their biased dependence on the European market. Korea's Hyundai and Kia, despite the resurrection of their Japanese competitors, 3rd-quarter domestic underproduction caused by labor strikes, and 4th-quarter fuel efficiency-related mistakes in the US, showed a good performance with 7.12 million cars in sales, surpassing their combined annual sales target of 7 million cars.

In the meantime, the business environment is a little pessimistic this year compared to last year. Major research institutes predict the global automobile market in 2013 will show more sluggish growth than in 2012 and that competition among the companies will become fiercer as they actively expand into overseas markets, particularly emerging markets

with high-growth potential, rather than domestic markets. From Korean companies' perspective, chances are that they will be burdened with increasing demand for social responsibilities, stronger checks and supervision, and rising labor costs. In particular, having grown as global makers, Hyundai and Kia are likely to feel repressed. Considering Korean car makers' high proportion of exports, they will likely have difficulties from the appreciation of the won, which is apparently proceeding from the end of 2012.

Their major competitors in Japan will likely take advantage of the weaker yen, no doubt another unfavorable factor for Korean makers. In regards to how badly these unfavorable factors will influence their performance, constant monitoring is required. They also need to be cautious with their financial structure-related indexes and cash liquidity in order to prepare themselves for unexpected negative situations.

- By Korea Ratings Analyst Lee Seung-ku



Shipbuilding

Shipbuilders appeared to falter in 2012 as the bearish market fell even deeper. They started 2012 with expectations of recovery after two consecutive global financial and fiscal crises in 2008 and in

2011, yet there were only a small number of new orders and no price rebound.

According to Clarkson, as of the end of November 2012, the total amount of new orders totaled 18.8 million CGT, down approximately 50% year-on-year, while the outstanding balance of orders was 93.3 million CGT, falling below the 100 million CGT level for the first time in seven years. Clarkson's new building price index approached 190p in 2008, yet had plunged to 125.9p as of the end of November 2012, showing a serious slowdown in the new building market. 125.9p is the lowest record following 124p in February 2004.

As the sluggish market continues, Korean shipbuilders are suffering from a double whammy of deteriorated profitability and insufficient working capital. The main reason for the fall in profitability is because the time has come to start delivering so-called malicious inventories for which they received orders just after the global financial crisis. The so-called "higher top and lower bottom" pattern in shipbuilders' profitability appeared when low-margin ships began to be delivered in 2011.

This pattern became worse in 2012. Particularly in the second half of 2012, the downward trend moved more steeply.



However, what is more serious is the lack of working capital. As poor performance in winning new orders continues, shipbuilders are struggling more with insufficient working capital. The recently prevailing payment type "Heavy Tail" is making things even worse. Recently, its negative influence has been expanding with a reduction in advanced payments.

Recovery doesn't look easy in 2013. This is because outlooks for marine transportation, which is the forward industry for shipbuilding, are still bad due to the delayed economic recovery and accelerated overload trend. Furthermore, the ship finance market remains in a stalemate. The ship finance market has reentered the credit crunch at a fast pace since the European fiscal crisis broke out. The on-going downward trend in ship prices has put financial burden on ship owners, while traditional ship finance powers in Europe have suffered from liquidity problems. This situation is making it more difficult for ship owners to get finance.

In the meantime, the shipbuilding market is proceeding with fast restructuring toward marine construction as oil prices remain at a high level. A bigger gap is expected between Big 3 who have the capacity for marine construction and the non-Big 3 who don't. Marine construction accounted for 12.1% (US\$ 13.8 billion) of the entire shipbuilding market in 2005, yet this increased to 24.5% (US\$ 26.6 billion) in 2010, 41.0% (US\$ 42 billion) in 2011, and approximately 60% (US\$ 32.5 billion) as of the 3rd quarter of 2012, the first time is has passed the 50% mark.

- By Korea Ratings Analyst Kim Bong-kyun



Steel

The steel industry shrank in size and profitability along with the general economic slowdown in 2012. Sales were sluggish as the European fiscal crisis continued, China's economic growth slowed down,

and general economic conditions in and out of the country remained depressed. Due to the decrease in demand, it was inevitable that production of major items such as steel plates and cold-rolled steel sheets would be reduced. Major players' sales and earnings fell because of the poor market situation and drop in prices.

It is projected that the oversupply trend will be fixed in 2013 as demand is unlikely to recover in the near future and the extended production lines of some items will increase supply. Therefore, the market will slow down in 2013 as it did in 2012. Accordingly, the performances of major steel makers in 2013 will be at a similar level to that of 2012. In

regards to demand, demand for steel materials is naturally linked to general economic growth. The IMF predicts that the global economy will grow 3.6% in 2013, similar to the previous year (3.3%), while the World Steel Association estimates global demand for steel materials in 2013 will increase 3.2%, higher than in 2012 (2.1%). However, considering that the European fiscal crisis still continues and the main street economy will suffer in the aftermath of the crisis, it cannot be ruled out that actual figures will be lower than predicted.

It is predicted that China, accounting for a significant portion of global demand and having the largest external influence on the Korean market, will see economic growth (estimated at 8.2%) and an increase in the consumption of steel materials (3.1%). However, these growth rates are low compared to the average since 2000. In the case of Korea, the IMF predicts that the general economy will grow 3.6% in 2013, a little higher than in 2012. Therefore, it is sensible to expect some sort of increase in demand for steel materials. However, considering the market situations of industries such as automobiles, shipbuilding and construction, it is difficult to expect any meaningful recovery in domestic demand.

Meanwhile, there are many variables on the supply side. After Hyundai Steel completes construction of its Dangjin Works' Blast Furnace 3 in September 2013, the company will be able to churn out 4 million tons of crude steel, 2 million tons of hot-rolled plates, and 2 million tons of steel plates annually. Therefore, from a wider perspective, while demand has not recovered yet, later process items such as cold-rolled sheets and steel pipes and upper process items like hot-rolled steel will be firmly oversupplied, with steel plates also likely to become oversupplied. In general, such an oversupply problem is likely to become more serious.

The Chinese market also has a meaningful influence on domestic supply. The key issue is whether excessive demand and supply will continue or not. In 2005, the Chinese government began to proceed with the restructuring of the steel industry in order to effectively control output and enhance industrial concentration. However, due to the economic recession since 2008, the Chinese government has had to focus on sustainable economic growth from a political and economic aspect rather than the restructuring of individual industries. As a result, it failed to push forward with restructuring the steel industry.

According to the government's 12th 5-year plan, the Chinese steel industry is being restructured once again. As the number of obsolete facilities increases, the oversupply problem might be gradually solved. With its inventory surplus decreased, China will have a smaller exporting capacity than before. However, considering the on-going European fiscal crisis and a possible economic slowdown in China, it is uncertain whether the oversupply problem will be solved quick enough to have a positive impact on the Korean and Chinese markets.

- By Korea Ratings Analyst Kim Bong-kyun @

































New Year's Messages from Major Conglomerate Chairmen

Major corporations in Korea have stressed the significance of their role in society in their New Year's addresses, reflecting the recent trend for economic democratization with a new government on the horizon. 2013 has kicked off amid economic concerns over the ongoing European financial crisis and fiscal cliff of the United States, and therefore business leaders cannot but appear resolutely determined while ushering in the New Year. What follows are their resolutions and promises for 2013



Samsung Group | Chairman Lee Kun-hee

Seek New Opportunities Instead of Settling for the Present and Fulfill Responsibilities as a Member of Society

"The global economy will remain in low growth this year and there will be a bumpy road ahead for us as well," said Samsung Group chairman Lee Kunhee in his New Year's address,

urging that his company make more efforts in product and service quality enhancement, training of human resources, technological R&D and effective patent management in order to survive cutthroat competition in today's global market. "Just forget about our past success and let's make a fresh start to carry out our mission of breaking the status quo and find a new path to prosperity," added, "We need to look farther ahead and lead future trends in exploring new opportunities for business sustainability."

He also stressed the importance of glocalization, to contribute to local communities based on the perfect understanding of different cultures as more and more global players try to keep Samsung in check as its position continues to rise

in the global business world. "The corporation has to attract excellent human resources and give them every chance to show their abilities because it is the most effective investment for the future," he added, "Samsung will be able to renovate itself at every moment and the entire organization will be filled with innovation if people with different characters and thoughts feel free to give their brilliant ideas."

The chairman did not forget to mention his company's corporate social responsibility, either. "The more difficult the economy gets, the heavier our responsibility for society in general, which means we have to take the lead in job creation and investment to buttress the domestic economy and give hope to people." He continued, "I believe, in this vein, that we should care more about our partner firms and their growth by sharing our expertise and know-how with them, while starting more CSR projects to give hope to our less fortunate neighbors. Let's communicate with people more and lend more helping hands so we can remain a trusted and beloved member of our society."



Hyundai Group | Chairman Jung Mong-koo

Secure Future Competitiveness through Quality and Brand Innovation along with Profitability-oriented Management

In his New Year's speech for 2013, Hyundai Motor Group chairman Jung Mong-koo emphasized the importance of profitability-centered management to tide over the current

global crisis. "The European financial turmoil and global eco-

nomic downturn are likely to linger on for quite a while down the road, making things tougher and tougher," he remarked at this year's kick-off meeting, adding, "But we'll pull through by building up our strength and resilience, and through qualitative, future-oriented growth."

He continued, "We're going to pursue brand innovation through quality improvement in this context, which means

we'll make continuous efforts to satisfy our customers at every contact point so they can feel proud of our brands." He also commented that the automaker would make more investments this year in job creation and future technologies, such as eco-friendly vehicles and electronic control, in a bid to nurture human resources and further refine its technological competitiveness.

"We've built no less than nine production bases around the

world during the past 10 years and they'll cooperate closely with one another, responding to market changes with flexibility, to meet this year's production and sales target of 7.41 million units," he went on, "At the same time, we'll do what we can to reach out to neglected classes and seek common prosperity with partner firms as a member of society contributing to the welfare of the nation and its economic development."



SK Group | Chairman Choi Tae-won

Top Priorities for 2013 are Holding Company Overhaul, Business Portfolio Improvement and Globalization

Unlike previous years, SK Group chairman Choi Taewon delivered his New Year's address at the SK China building in Beijing. "The SUPEX Committee will take charge of

corporate decision making in my place from now on and I'll concentrate on finding new global growth drivers," he said, "At the same time, the holding company will renovate itself, with the enterprise business portfolio to be further refined."

"In what we call the SK 3.0 system, the conference will represent the entire group while supervising the business unit decision-making process," added the chairman, "It means that the holding company will not intervene any more in each business unit's day-to-day business activities but rather focus

on its role as an investment decision maker, with the boards of directors of these units taking the lead in their autonomous, independent management and taking part in enterprise issues when necessary."

He also mentioned that the company would renovate its global business and investment portfolios significantly to better respond to fast-changing market environments and set the stage for future growth. "We all know that global economic situations are far from favorable for us and society's and interested parties' expectations are soaring, urging us to more than fulfill our social responsibilities," he continued, "I'll do my part by making full use of my knowledge and experience to that end, and I hope that you'll exert efforts for the same goal of creating a sound business ecosystem and contributing to the prosperity of our society."



LG Group | Chairman Koo Bon-moo

Work Together with Partner Firms for Market Leadership thorough Implementation of Growth Strategies

LG Group chairman Koo Bonmoo welcomed CEOs in the same group with a particularly pleasant smile at the kick-off meeting this year. There, he talked for over 30 minutes with

LG Electronics vice chairman Koo Bon-joon, LG U+ vice chairman Lee Sang-chul, LG Household & Healthcare vice chairman Cha Suk-yong and other top executive members. The meeting was broadcast to all employees nationwide.

"Our keywords for this year are market leadership and thorough implementation of growth strategies," he said, "Let's create more and more market-leading products to make an impact across the world, and satisfy and surprise our customers by means of advanced technologies and out-of-box ideas." The chairman went on, "Instead of being content with what we are, we'll make our passion and aspiration come true in our own way with all of our staff members setting examples, changing the way we work for the better and immersing themselves into customer value creation."

He also showed his strong will to attract and nurture human resources. "LG is a company putting human capital ahead of anything else, and the place where its people realize their dreams," adding, "Top management should do their part so the best people can better design their future and go for their dreams." He finished his speech by saying, "Also, never forget that we can thrive only when the society we belong to and our partner firms prosper. We'll be able to become a true global market leader only when we try to find ways to do so in close cooperation with our collaborators."





POSCO | Chairman Chung Joon-yang

Seek a New Paradigm of Value Management with Proprietary Technologies Making Breakthroughs

POSCO's CEO Chung Joonyang, who experienced a harsh business environment last year, has demanded a new paradigm in his New Year's message. "It is projected that POSCO

will have to play the fiercer chicken game for survival in its pivotal steel business and endure extreme hardships in the entire businesses this year. I am confident that you will not be caught in optical illusions and insensibility. Now I propose a new paradigm of value management," said Chung.

He proposed to change the paradigm of competition to value competition, not price competition, and demanded company's market leadership and profitability be boosted. He unveiled his belief that customers will no longer accept the value unilaterally created by the company, meaning it should come up with specific solutions and work with customers to create substantial value that they can feel in their hearts.

He talked about strengthening the organizational capacity, saying "We have to strengthen our underlying power to overcome crisis by upgrading our innovative management. Maintaining hardware-centered productivity and operation-

al efficiency is not enough to overcome the crisis that the POSCO family is now faced with. We can secure fundamental competitiveness in the true sense only by building dynamic organizational capacity through the innovation of software, such as job process, the way jobs are performed, as well as changes in members' mindset."

He stressed that proprietary technologies can make breakthroughs. According to him, recent market trends show that the competitive gap is getting smaller at a fast pace and that it is becoming more difficult to maintain market leadership. He claimed that POSCO really needs breakthroughs in this market situation. He added, "We have double trouble of oversupply and sluggish demand now. I hope you will do the utmost to develop unique products that can mesmerize our customers and boost our customer value." He repeatedly emphasized the importance of risk management in global business.

He closed his message saying, "As the late POSCO Chairman Park Tae-joon put his sense of responsibility toward the company into practice with the so-called "soul-melted" efforts, we also need to infuse our soul into our job responsibilities.



Hanwha Group | Chairman Kim Seung-youn

Be the Leader of Creative Change as well as the Global Leader in Solar Business through Green Growth

Hanwha Group made it clear in its recently released New Year's message that the company is moving forward to make great achievement in celebration of its 60th anniversary

despite global chaos and cataclysm.

Hanwha's CEO Kim Seung-youn delivered his New Year's message, saying "We need to set new future coordinates and sincerely carry out our social and economic responsibilities befitting our position. We will become a leader of creative change." He added, "A business entity is just like an organic life. As it is aging, it should try not to lose its physical and mental health. It should maintain its youthfulness with globally competitive business capacity, organization and human resources." He vowed to sharpen the company's competitive edge based on wise choices and concentration.

He stated Hanwha should improve its organizational struc-

ture, institutions and rules to global-standards; for example, there will be no more discrimination by job position, educational and geographical background, and gender, and a performance and ability-centered culture will take root.

In regards to the group's next-generation growth engine, Kim said Hanwha should make all-out efforts for the early settlement of the solar business and become a leader of global green growth. "Fossil fuels led to the development of human civilization, but green energy will lead the future industrial revolution," said Kim. He unveiled his aspiration to realize his long-term vision to make Hanwha stand as the world's leading enterprise through the solar business.

He also said that Hanwha should implement a sharing program to serve local economies' co-prosperity and balanced development. He explained the sharing program is not limited to material things, and that Hanwha should move forward as a going concern through social contribution.



Kumho Asiana Group | Chairman Park Sam-gu

Urges Employees to Set a Good Example while Pledging to Build a Harmonious Labor-Management Culture

Announcing a new company policy for the New Year, "Setting an Example," Chairman of Kumho Asiana Group Park Sam-gu said that he would make his best efforts to practice

economic democratization. In a New Year's speech, Mr. Park remarked, "You can be successful by taking the initiative and setting a good example," adding, "let's deliver on what we promise, fit action to words, and lead the way in achieving goals."

He went on to say, "I hope that managers in charge will pioneer these efforts for the development of the organization as well as individuals," adding, "the group and the company itself should set a good example." Chairman Park offered concrete goals needed to help the firm achieve this: "Not to engage in any practices subject to criticism by society," "Do one's best to hit management targets," and "bring about a friendly labor-management culture." As for the issue of economic democratization, he commented, "Economic democratization has become a buzz word among entrepreneurs these days, and I think from a corporate point of view, it means not to engage in any practices subject to criticism by the public and society." He placed special emphasis on, "making the firm free from such accusations both by the public and society."

He also presented the establishment of a friendly labormanagement relationship as one of key action plans for the year. He said, "Companies exist for the purpose of improving the quality of life of all stakeholders. As the company's very existence would be threatened without the employees, both the company and management should take a proactive stance and try to build a harmonious industrial culture." At the end of the speech, he said the company made a commitment to make it better place for its employees, and urged employees to make both the company and society a happier and safer place to live.



Doosan Group | Chairman Park Yong-maan

Doosan Way Will Firmly Take Root by Enhancing Fundamental Competitiveness and Establishing Advanced Processes and Systems

Doosan Group is forecast to concentrate its efforts on improving fundamentals rather than trying to expand its business too hastily. In his New Year's speech, Park Yong-

maan, Chairman and CEO of Doosan Group, said that the company would focus on building a strong competitive edge and establish advanced processes and systems in an effort to become one of the world's top companies in the current lowgrowth era.

The group also aims to advance processes and systems as part of efforts to enhance its competitiveness. Mr. Park said, "Waste and inefficiency can be removed only when we fundamentally change the way we do business, not simply through the defensive management of business, such as tightening purse strings," adding, "I hope that we will be able to get rid of outdated processes and business methods."

To that end, he urged each subsidiary to, "decide on a star project and put company-wide efforts into making that core project a success." He also said that he would make sure the so-called "Doosan Way", which captures the essence of Doosan Group's core values and culture, is firmly rooted in the company's work and the daily lives of employees.

The Doosan way, which Mr. Park declared following his inauguration, represents a unique management philosophy that Doosan employees should pursue. It captures such ideas as nurturing talent, devising a compassionate performancebased system, and securing unrivalled technical skills.

Meanwhile, corporate social responsibility (CSR) activities, which the company has been engaged in both at home and abroad will continue in 2013. Park urged employees to, "pay keen attention to changing the social environment and fulfill our social responsibilities to position ourselves as a company actively creating shared value, as well as a respected company befitting its 100-plus year history.

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NORTH KOREA

A Symptom for Opening of the North?

Amid claims that South-North economic cooperation is key to the incoming government resolving its conflict with North Korea, Google's CEO Schmidt's visit to the North and declaration that it needs to drop barriers to Internet access has drawn significant attention

South Korean President-elect Park Geun-hye offered voters a platform that, in collaboration with the international community, she would advance relations with North Korea by expanding and developing economic cooperation projects, including the Kaesung Industrial Complex project and Keumkang Mountain tour. The pledge indicates that economic cooperation is the key to improving the strained political relationship between the south and north. Given that the reclusive country urgently needs to reset its bilateral relationship with the south, if the Park Geun-hye administration actively engages in dialogue, it could trigger a new era of detante, at least on the economic front

In a New Year's speech on January 1, North Korean dictator Kim Jung-eun stressed the need for economic cooperation with the Park Geun-hae administration in order to revive its economy, saying, "Economic development should benefit the

Google's Executive Chairman Eric Schmidt (second on left) and former governor of New Mexico Bill Richardson visited the Korea Computer Center in Pyeongyang on Jan. 9

lives of the general public. What is needed to achieve reunification on the Korean peninsula is the removal of confrontation between the north and the south."

A realistic alternative is to expand exchanges and cooperation mainly at the Kaesung Industrial Complex. It is the only cooperative model that has continued uninterrupted, even amid heightened tension on the Korean peninsula under the Lee Myung-bak administration. Despite such unfavorable conditions, both countries managed to avoid conflict regarding operation of the industrial park, clearly indicating its importance to the North Korean economy.

The same can be said for the South Korean government. One government official said, "The Kaesung Industrial Complex continued operations even when tensions were running high in Northeast Asia over the north's missile launch." adding, "It can serve as a buffer against a political confrontation between the south and the north."

Currently, some 120 South Korean firms are doing business in the complex. In industries ranging from textiles, machines & metal, to chemicals and food, approximately 800 South Korean workers and 51,000 North Korean work at the site every week day. Relevant goods taken out of or brought into the area amount to US\$1.4 billion a year, or 35% of the north's total exports.

This June marks the 10th year anniversary of the beginning of construction of the complex. The two had initially planned to develop some 26 million m^2 (8 million pyeong) of land in three stages, but due to strained relations between the two countries, they significantly scaled back the plan, deciding to only proceed with stage 1, developing some 3.3 million m^2 (1 million pyeong) of land. Observers predict that once the relationship between the two countries ripens, the suspended development work -2.5 million pyeong in phase 2 and 5.5 million pyeong in phase 3 – could resume.

Hong Soon-jik, a chief researcher at Hyundai Research Institute, said, "Economic cooperation, such as the Kaesung Industrial Complex project, is producing positive results for the north, helping the repressive country nurture its employees and secure technologies," adding, "The cooperation is







Some 120 South Korean firms are doing business in the complex. In industries ranging from textiles, machines & metal, to chemicals and food, approximately 800 South Korean workers and 51,000 North Korean work at the site every week day

also helping its southern neighbor to reduce geopolitical risks, thus boosting its creditworthiness as well as revitalizing domestic consumption and creating jobs. Therefore, the south plans to expand cooperation with the north in the future.

Yang Moo-jin, a professor at the University of North Korean Studies, said, "Amid strained political conditions, economic cooperation between the south and the north can produce results faster than any other field." adding, "As was the case with the Kaesung Industrial Complex, growing interdependence between the two countries could help them work through political and military conflicts.

Google's Schmidt Visits North Korea

With growing emphasis on the need for inter-Korean economic cooperation, Google's Executive Chairman Eric Schmidt's visit to North Korea triggered controversy. On January 7 (local time), Mr. Schmidt joined an unofficial US delegation on a four-day trip to North Korea with Bill Richardson, a former governor of New Mexico.

As senator, Mr. Richardson had made several trips to North Korea, opening up lines of communication with the suppressive state, yet this was the first time a high-profile business executive had joined him.

The international community and the information technology industry are closely watching how the visit will affect North Korean society. Bloomberg Businessweek predicts that the visit will likely trigger a full-scale economic reform in the reclusive country. The magazine also predicts that Google could play a significant role in the process of economic reform in the north, such as in its online business.

Meanwhile, in an interview with AP on January 9, the former governor of New Mexico said that along with calls for opening up access to mobile phones and the Internet, the delegation also raised concerns over the north's missile launch and nuclear tests, yet he declined to comment on the north' reaction.

Mr. Schmidt, who returned to Beijing on the afternoon of January 10, drew attention by strongly urging the north to drop barriers to Internet access. Speaking to reporters in Beijing that day, the Google chief, while bluntly lashing out at the north's closed web environment, stressed the need to open up access to the Internet.

He said, "As the world becomes increasingly connected, their decision to be virtually isolated is very much going to affect their physical world." He went onto harshly criticize the



north's closed IT environment, calling it "the Internet under scrutiny." He said "The north's Internet infrastructure is accessible only to the government, the military and universities, not the general population." He went on to say, "I toured high-tech facilities North Korea was proud to introduce to us, such as the Kim II-sung University, Korea Computer Center (KCC) in Pyeongyang, and The Grand People's Study House, but the technology in North Korea is very limited."

Despite Mr. Schmidt's outspoken criticism, some observers predict that his visit might be a prelude to a certain type of support for the reclusive country.

They figure that the Internet-search giant aims to accelerate the opening-up of the north while helping it improve its IT-related skills and nurture human resources based on the precondition that the north drop barriers to Internet access, at least to some extent.

However, others say that it would be hard for the Internet behemoth, which has often been at loggerheads with the Chinese government over its strict Internet censorship, to find common ground with the north, a country with what is probably the most limited Internet access in the world.

US Government Repeatedly Calls the Timing of the Trip "Unfortunate"

Meanwhile, the US government reaffirmed its position on Jaunary 10 that the time was not right for Google Execusive Chairman Eric Schmidt and former governor of New Mexico Bill Richardson to travel to North Korea, a negative stance that followed similiarly critical comments made on January 3 and January 7.

State Department spokesman Victoria Nuland said in a regular briefing session, "Schmidt and Richardson would be traveling as private citizens, not representatives of the US government." "Frankly, we don't think the timing of this is particularly helpful," Nuland told reporters.

Nuland also said that Washington is not seeking a debriefing from the delegation, but added that officials would listen if the group wants to speak to them."



JANUARY 2013 | BusinessKorea





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GANNAM-GU DISTRICT OFFICE

Heightening District's Global Standing

Gangnam-gu District is gaining attention from around the world as a driving force behind global trends and cultures, while achieving great successes in establishing and implementing one-step-ahead policies in local administration fields such as education, welfare, environment, culture, tourism, and transportation



Since taking office around two and half years ago, Shin Yeon-hee, the Head of Gangnam-gu, has been busy keeping her promise to make Gangnam-gu the best district and heighten its global standing. As a result, the district is seeing the fruits of such efforts in fields such as tourism, economy and welfare. BusinessKorea sat down with her to hear the secret of the district's excellent performances.

It has been over two years since you became head of Gangnam-gu District Office. Have there been any remarkable accomplishments from projects you have proceeded with?

Gangnam-gu is indeed one of the nation's representative districts. Since I took office in July 2010, I have tried my

best to realize the policy vision of each field, aiming to make Gangnam-gu the nation's best district not only in terms of economics, but also education, welfare, environment, culture, transportation, administration, and everything else.

Myself and approximately 1,400 public servants in Gangnam-gu have been busy keeping the promise to "make the district full of hope" and "heighten the district's global standing". It has been concluded that Gangnam-gu's "full-day child care service for 24 hours, 365 days" will go nationwide, having been recognized by the Ministry of Health and Welfare. Furthermore, in 2011, Gangnam-gu was chosen as the best district in terms of financial soundness.

Now at the mid-point of my term, I am pleased and grateful that our efforts have resulted in good performance and the district's global standing has been heightened. In particular, I am proud of our support for the success of the G20 Summit 2010 and the Nuclear Security Summit 2012, which showcased the attractiveness of Gangnam-gu District and the mature civic consciousness of Gangnam-gu people.

What kind of support are you providing to attract foreign investment into the district and promote international trade for Gangnam-gu-based companies?

As soon as I took office, I began making necessary bylaws, including provisions about incentives to attract promising Korean and foreign companies into the district. In accordance with these bylaws, we have officially established the business and investment support commission. Our public servants are also involved in various one-to-one investment promotion activities.

Thanks to these efforts, we succeeded in settling Ralph Lauren Korea (annual sales estimated at 200 billion won), Pacific Pharma, The Redface, and three other promising companies in Gangnam-gu District last year.

We will also diversify our efforts in order to maximize the economy of Gangnam-gu. For example, we will supply land-mark buildings by redeveloping the Korea Electric Power Corporation (KEPCO) building site and the Suseo subway station area, which will help attract global anchor businesses.





Approximately 8,400 trading firms, equivalent to nearly 7.3% of the national total, have converged in Gangnam-gu District. Most are small and medium-sized enterprises. Since my inauguration, we have dispatched commerce promotion teams to and supported global exhibitions in 19 cities in 12 countries across Europe, South America and Southeast Asia, as well as our international sister communities such as the Chaoyang District in Beijing and Gwuinnett County in Georgia, USA. In total we have helped 154 Gangnam-gu based companies win a total of 116.3 billion won worth of export contracts. This year, we will continue to dispatch the commerce promotion teams overseas and provide full support for

It is said that Gangnam-gu's international convention and exhibition venue COEX is no longer enough to accommodate increasing market demand. Is there something in your mind to solve this problem?

small and medium-sized enterprises participating in recog-

nized global exhibitions.

First of all, Gangnam-gu Office is in talks with COEX to extend exhibition space and convention space by 30% (35,287m²→45,370m²) and 60% (14,143m²→22,938m²), respectively. Our mid and long-term plan is to redevelop the site (34,412.2m²) of the Seoul Trade Exhibition Center, which is currently used as an exhibition venue for small and medium-sized enterprises, into a larger-scale exhibition complex, and to efficiently connect its function to that of COEX. In this regard, we are in talks with the Seoul municipal government.

Furthermore, the site (143,534m²) of KEPCO, which is scheduled to move out of Gangnam-gu in 2014 according to public organization relocation plans, will be redeveloped into a complex commercial infrastructure serving many purposes, such as international exhibition and convention, culture, tourism, accommodation and business.

Gangnam-gu has recently gained great popularity around the world due to Psy's hit song "Gangnam Style." Please introduce Gangnam-gu's major tourist sites.

Since August last year when Psy's "Gangnam Style" came into the spotlight, Gangnam-gu Office has been flooded with requests for press coverage, including The New York Times, Germany's public media ZDF, and mass media from Singapore, the Philippines, etc.

Gangnam-gu District has many traditional sites, such as "Seonjeongneung," a royal tomb designated a world heritage site by UNESCO, "Bongeunsa," an old Buddhist temple housing a handwritten sign by Kim Jeong-hee (a 19th century famous scholar, artist and calligrapher) and 16 other cultural assets, "Tomb of Gwangpyung Prince," one of King Sejong's sons, "Kukkiwon," the world Taekwondo headquarters, and "Korea Cultural House (KOUS)," as well as very modern sites such as "COEX," the "Horse Dance Stage" known as a photo zone in U-Street and the subway Gangnam Station,

Foreign visitors contribute a lot to the economy of Gangnam-gu District. When I took office, I clearly recognized the importance of tourism. So the Gangnam-gu District Office has actively promoted overseas marketing

Shinsa-dong's "Tree-lined Street" known as the fashion hub, and Cheongdam-dong's "Luxury Goods Shopping Street."

The Gangnam-gu Office recently attached QR codes to pedestrian street blocks for the foreign and Korean visitor convenience, a first in Korea. These QR codes are now installed on blocks surrounding COEX and along the "Treelined Street" on a trial basis. By scanning these QR codes, visitors can have easy access to mobile Internet sites in English, Japanese and Chinese, allowing them to get information about location, shopping, restaurants, cafés and nearby tourist sites.

Please tell us more about your efforts to promote culture and tourism.

Foreign visitors contribute a lot to the economy of Gangnam-gu District. When I took office, I clearly recognized the importance of tourism. So the Gangnam-gu District Office has actively promoted overseas marketing.

Along with the recent "Gangnam Style" fever, the Gangnam-gu District Office set up a new department, as of November 1 2012, dedicated to building systematic and professional tourism infrastructure, and aiming to attract as many foreign tourists as possible.

Since then, we have established a master plan for the promotion of tourism and expanded accommodation, including home-stay programs and tourist hotels.

The Horse Dance Stage in the Gangnam subway station provides foreign and Korean visitors with things to enjoy. Visitors can also enjoy Gangnam on a tour bus that operates three times a week.

We will also increase the promotion of tourism by connecting tourism to the "Korean Wave" (popularity of Korean culture overseas)."

We plan to build a one-kilometer-long street of Hallyu Stars in order to make Gangnam the hub of Hallyu toursim. This street will be connected to Apgujeong-dong's Rodeo Street and the "Tree-lined Street", to help tourists enjoy beauty, fashion and sightseeing together. Now we are thinking of theme travel in regards to Hallyu tourism

Construction work for the tourism information center linked to the Street of Hallyu Stars is proceeding smoothly. The information center will have themes for medical tourism and Hallyu tourism. We expect it will provide high-quality information to foreign visitors in the Gangnam-gu District.









Finance & Investment

2013 STOCK MARKET OUTLOOK

Will KOSPI Touch 3,000 Points within Five Years?

To reach this, the net profit of listed companies needs to grow 1.5-fold, with domestic service and demand industries also further boosted



ou have my word I'll take the KOSPI to another level, 3,000 points specifically, within five years," said President-elect Park Geun-hye on December 18 at the Korea Exchange in Yeouido, Seoul. Incumbent President Lee Myung-bak made a similar pledge five years ago, claiming, "I'll bring the index to 3,000 and 5,000 before the end of my first and last year as President, respectively." With his term coming to a close in two months, the declaration has become nothing more than a hollow promise due mainly to the ongoing global financial crisis.

The consensus among experts is that a stock price index of 3,000 points within five years from now is no pipe dream in light of the growth potential of Korea and the recovery of the global economy. "The KOSPI can touch 3,000 points in five years if it gains 8.5% each year," said Kim Ji-hwan, who heads the Hana Daetoo Securities Research Center, adding, "The

stock index, not considering dividend payments, has increased 9.8% annually on average since 1980, which means it could reach 3,000 points in five years, at least arithmetically." Song Jae-hak, his counterpart at Woori Investment & Securities, echoed this, saying that the incoming President and her policy had had some positive effect on the stock market so far.

Some conditions have to be met for the KOSPI to reach 3,000, including the expansion of business profits, favorable external factors, higher growth potentials and the soft landing of the real estate market. Hyundai Securities Research Center director Oh Sung-jin remarked, "The stock prices reflect the size of profits of listed companies, and therefore their current net income should increase sharply, to at least 150 trillion won combined, for the index to touch 3,000." As of December 27, 2012, a total of 301 were listed on the KOSPI with a combined net profit of 95.712 trillion won.

Foreign Investors Eyeing KOSPI

The role of domestic demand is critical for their current income to surpass the 150 trillion won mark. Kim Hak-kyun, head of the Investment Strategy Team at Daewoo Securities, commented, "Domestic demand-oriented industries, including the financial sector, used to account for over 60% of total market capitalization until the early 1990s, but this has dropped all the way down to 25% or so." He added that the new government would be well advised to back small businesses, the service sector and home market industries in order to tide over low growth, as well as reduce the dependence of the stock market on export companies and chaebols.

One of the most effective ways to boost domestic demand is promote consumer confidence by helping households deal with their debt. In this context, Kim added, "The government needs to stabilize the housing market and address the debt issue for a sounder domestic economy, while also dealing with income disparity." The IMF has also said, "Korea's per



capita income will exceed US\$30,000 by 2016, and its stock index is expected to top 3,000 points within five years on the assumption that its export competitiveness is enhanced and domestic consumption is boosted enough."

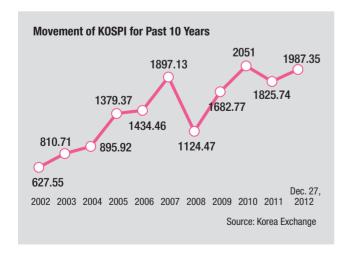
Some analysts are claiming that the country should ponder more upon its future growth strategy as concerns over low growth are putting a strain on the stock market. "There should be some leading growth drivers to open up a new era, two examples would be economic cooperation between the two Koreas and support for exports to the ASEAN region," said Shinyoung Securities Research Center head Jo Yong-joon.

He went on to say, "In view of the outlook of the construction industry and job creation, now is the time to seek future growth by holding hands with the North, and at the same time, come up with more measures to better penetrate the ASEAN market, which is representing 15% of total exports from Korea and growing at an annual average rate of 6% to 7%."

Industry insiders and market analysts are quite positive about predictions for the stock market for the next five years in that Korean companies have increased their competitiveness significantly in the past five. In particular, IT and energy companies are doing increasingly well in the global market, with the possibility of the current account balance turning into a deficit low. In addition, the strong won trend is likely to result in an increased inflow of foreign investment. Director Oh commented, "If Samsung Electronics' and Hyundai Motor Company's stock prices, which have doubled over the last five years are any clue, I guess the index is more than capable of gaining 50% over the next five years."

At present, the average price-earnings ratio (PER) of the 301 listed companies is 8.6, which is equivalent to an interest rate of 11% to 12%. The government bond interest rate is 2.8%, while the corporate bond yield rate is 3.3%. "The Korean stock market is an attractive investment option in today's low-interest trend," said Hana Daetoo's Kim Ji-hwan.

According to the Financial Supervisory Service, foreign investors owned KOSPI shares worth a total of 406 trillion won as of the end of September 2012, the highest since



According to the Financial Supervisory Service, foreign investors owned KOSPI shares worth a total of 406 trillion won as of the end of September 2012, the highest since 412.5 trillion won in April 2011. In December 2012 alone, they bought 3.9 trillion won worth of shares, focusing on IT, chemical and shipbuildina

412.5 trillion won in April 2011. In December 2012 alone, they bought 3.9 trillion won worth of shares, focusing on IT, chemical and shipbuilding. Samsung Securities' senior researcher Shin Dong-suk said, "Foreigners are thinking well of Korea and its economic conditions, with more and more liquidity being supplied to the global financial market."

Uncertainties and Low Growth May Pose Stumbling Block Still, it is no easy matter to increase profits and address market discount as the Korean economy is vulnerable to external factors. Uncertainties could lead to a poor performance on the part of exporters, while the growth slowdown might persist.

The Bank of Korea and national economic research institutes are estimating a growth rate for 2013 at slightly over 3%, yet foreign investment banks are more negative --Nomura Securities predicted 2.5% and Merrill Lynch 2.8%. "The Korean economy is a small-scale open economy, its future growth will be influenced greatly by the recovery of the US and Europe," said Yoo Seung-min, director of the Samsung Securities Investment Strategy Team.

KOSPI Regains 2,000 in Early January

In the meantime, the KOSPI regained the 2,000-point plateau on January 10 after some horizontal movement.

On that day, electrical and gas companies' stock prices rose by more than 2%, including the Korea Electric Power Corporation (KEPCO), in the wake of news that power rates would be increased approximately 4% from January 14. Samsung Electronics and other companies in the same category also added to the uptrend. At 11:22am, on January 10, the index gained 0.50%, or 9.88 points, from the session earlier to reach 2,001.69, with individual and foreign investors buying 45.8 billion and 34.7 billion won worth of shares, respectively, and institutional investors selling stocks worth 82.3 billion won. Program selling reached 141.4 billion won.

The stock prices of paper and wood manufacturers, medical companies and precision instrument manufacturers rose by more than 1%, while drug manufacturers and the telecom and financial sectors fell. Most market cap leaders showed a 1% to 2% rise that day, including Hyundai Motor, LG Chem, SK Hynix, Hyundai Heavy Industries and SK Innovation. Samsung Electronics and the KEPCO gained 1.53% and 3.16%, respectively.









President-elect Park Geun-hye came up with various pledges during her campaign, one of the most controversial being economic democratization. This was a key phrase on which the ruling and opposition parties demonstrated a sharp conflict of opinion during the election campaign. She tabled the seemingly left-wing agenda item ahead of her competitor and set forth related pledges in order to gain the upper hand.

In Korea, economic democratization is commonly defined as the movement to dismantle the economic dictatorship and authoritarianism of family-run conglomerates, also known as chaebol. No one can deny that they are wrapping the Korean economy around their finger, accounting for over 80% of the combined gross sales of all Korean companies.

The President-elect's intention is to impose regulations on them and give more opportunities to smaller, more vulnerable economic agents. The idea is based on Clause 2, Article 119 of the Constitution, which covers government regulations for balanced economic growth and income distribution. "I'll make sure everyone in our society will enjoy the fruit of economic prosperity and no one is left behind," she said at the

very first press conference after her election, adding, "That's the true meaning of national unity, economic democratization and a country good to live in."

She has adhered unwaveringly to the pledge ever since, making chaebols jittery. She recently visited the Korea Federation of Small and Medium Business, the first economic organization she has visited as President-elect, and promised some policy measures in favor of small businesses, giving a hint as to the new administration's overall economic policy.

Nub of Economic Democratization

At the center of economic democratization is chaebol reform. She stressed repeatedly during her election campaign that she would crack down on the illegal practices of conglomerates. In detail, she promised a ban on circular equity investment, along with cumulative and electronic voting and multiple derivative actions for the protection of minority shareholders. She also said that she would amend the law so that no stay of execution can be given to chaebol owners and their families engaged in criminal activities. Furthermore, she suggested a limited prerogative of mercy and the reduc-



Kim Jong-in(Left), Head of the People's Happiness Committee of New Frontier Party, Lee Han-gu, the Party Floor Leader

tion of a financial or insurance company's voting rights in a non-banking subsidiary from 15% to 5% in order to separate industrial and financial capital.

All of these policy measures share the same goal, that of corporate governance reform. Park has mentioned the strengthening of fair trade as a way to attain this. To this end, the Fair Trade Commission's exclusive right to accuse is nullified, while companies that harm consumers are supposed to face greater liability for compensation for punitive damages and class action suits.

Some entrepreneurs are said to be concerned about Park, such a principled person, sticking to her pledge too seriously. The business community is therefore paying keen attention to her future policy stance in regards to economic democratization. Some have even gone so far as to set up task forces to cope with the issue.

Controversies Surrounding Economic Democratization and Revitalization

"Economic democratization is designed to prevent a certain group of people from dominating our economy and society," said Kim Jong-in, head of the People's Happiness Committee of the ruling New Frontier Party. Stressing the importance of timely policy implementation, he added, "Procrastination will result in chaebols' strong opposition to make things harder." Kim is one of the people who led Park to focus on the agenda.

However, it is still up in the air in regards to what pace she will take. Park and Kim have already had a conflict of opinions regarding the specific scope of economic democratization. Ruling party floor leader Lee Han-gu, an experienced economist, is also claiming that economic growth on an even playing field be put first. "It's wrong to limit the concept of economic democratization to chaebol bashing. It is rather closer to fair economy and fair competition."

"The effect of leaving the existing circular equity investment as it is and banning new such investment will be limited at best," said an anonymous executive at a local securities company, adding, "In addition, she will have to slow down the policy, at least to some extent, if conglomerates continue to show a low profile amid the ongoing economic recession."

In this vein, some experts are asking that the incoming government, in the interest of investment attraction, address any economic uncertainties that could be caused by economic democratization. "Economic democratization must come after considerable consideration regarding its impact on investment and job creation," said Hwang In-hak, senior research analyst at the Korea Economic Research Institute. The same institute's Macroeconomic Policy Division director, Byun Yang-kyu, echoed this, saying, "Removing policy uncertainties during the early days of the new administration and making room for investment will contribute to domestic market growth."

"Timing matters when it comes to economic policy and it seems to me that 2013 will be a very tough time for the Korean economy," said Kim Kwang-doo, chairman of the National Future Research Institute, "To provide against this situation, the new government would be well advised to prepare a revised supplementary budget of approximately 10 trillion won for economic stimulation." The head of the think tank is one of the figures expected to be assigned to an import post in the new administration.

Direction of Economic Democratization

In the meantime, the Presidential transition committee, which was recently put into operation, appears to be focusing more on the livelihood of the public than chaebol control.

In fact, the President-elect herself has already mentioned that she will concentrate on economic reinvigoration for some time, not putting the cause aside. "I'll put first the safety of the people and economic vitality as two of the most important aims," she said at a recent general meeting of the transition committee. Her remark can be ascribed to signs of a further economic slump that have emerged since last year. A prolonged recession could impose a great burden on her government by exacerbating social tensions.

According to political experts, the new administration is likely to come up with temporary deregulation and investment attraction measures for economic recovery, while maintaining the stance of economic democratization. In this case, she may keep close relations with conglomerates for a certain period as she has to ask them for job creation and larger investment.

As a matter of fact, she watered down and shifted the focus from chaebol reform to fair competition during the final moments of the campaign, putting to the fore such promises as increasing the ratio of the middle class to over 70%. As a result, some people are predicting that policy measures not directly related to a person's livelihood, e.g. a ban on new circular equity investment and separation between industrial and financial capital, will take a back seat to support for small businesses, job creation and the like for the time being.





CENTRALIZATION OF ECONOMIC POWER

Heavily Biased toward Big Conglomerates

Top 10 business groups' net earnings reached 80% of all listed firms', while number of top 30 conglomerates' affiliates has quadrupled in 10 years

ith the amount of production from the nation's top 10 groups surpassing half of that of all listed companies, Korea has a serious concentration of economic power in big

On the contrary, small and medium-sized enterprises (SMEs) see their position weakening even more. This is because the so-called three Nots (not fair, not balanced and not reasonable practices) continue to create a harsh environment for them.

With President-elect Park Geun-hye's recent economic moves aimed towards supporting SMEs, eyes are focused on whether the fulfillment of her campaign promise to get rid of the 'three Nots' will make a real change to the nation's economic structure.

Concentration of Economic Power in Big Conglomerates Becoming Serious

According to two financial research firms "FnGuide" and



Visiting the Federation of Korean Industries (FKI) building in the daytime on December 26, 2012, South Korea's Presidentelect Park Geun-hye is shaking hands with the FKI Chairman Huh Chang-soo after receiving a booklet from him.

"Chaebul.com" on January 10, a total of 1,345 listed manufacturing firms whose fiscal year ends in December recorded 909.3 trillion won in sales for the first to third quarters last year. Among them, the number of top 10 group affiliates totaled 80, with their combined sales over the same period amounting to 492.5 trillion won, 54.2% of the total.

More specifically, Samsung Group recorded 152.5 trillion won (16.8% of the total) in sales during this period, Hyundai Motor 100.5 trillion won (11.1%), LG 73.7 trillion won (8.1%), POSCO 43.8 trillion won (4.8%), SK 42.4 trillion won (4.7%), Hyundai Heavy Industries 24.9 trillion won (2.7%), Lotte 24.4 trillion won (2.7%), GS 13 trillion won (1.4%), Hanjin 10.5 trillion won (1.2%), and Hanwha 6.7 trillion won (0.7%).

The combined proportion of the top 10 groups' sales is in an upward trend; 52.1% in 2008 when the global financial crisis broke out, 53.6% in 2009, 55.2% in 2010, 54.0% in 2011 when the proportion turned direction, and 54.2% for the first to third quarters of 2012, and seeing the proportion moving upwards once again.

Given that Samsung Electronics announced record high sales in the fourth quarter of 2012, the combined proportion of the top 10 groups' sales for 2012 is likely to be even bigger. Samsung Electronics' accumulated sales for the first to third quarters of 2012 amounted to 103.7 trillion, 11.4% of the overall total.

Furthermore, the top 10 groups' net earnings approached 80% of that of all listed firms'. The top 10 groups' combined operating income was 42.3 trillion won, 74.5% of the total 56.8 trillion won, while their combined net earnings stood at 36.9 trillion won, 78.1% of the total 47.3 trillion won. The proportion of their net earnings was larger than that of their operating income.

The conglomerates showed superiority not only in productivity but also in the ability to finance their operations.

The combined market capitalization of 95 listed companies that belong to the nation's top 10 groups, including financial institutions, stood at 733.9 trillion won, 57.9% of the total 1.267quadrillion won) as of January 8, 2013. This is a 3.4% point rise from early August 2011 (54.5%), and









occurred just before the fiscal crisis began in the Euro zone. In other words, these conglomerates expanded their power even further, and despite the entire nation suffering from the global economic crisis.

The combined market capitalization of Samsung Group's 17 listed family members amounted to 336 trillion won, accounting for 26.5% of the total. Hyundai Motor represented 10.3% of all listed firms' total market capitalization, while LG 6.1%, SK 5.5%, POSCO 3.1%, Lotte 2.2%, Hyundai Heavy Industries 1.7%, GS 1.0%, Hanwha 1.0% and Hanjin 0.4% followed.

Big Conglomerates' Indiscriminate Expansion

Concentration of economic power is not only a story of the top 10 groups.

As of the end of 2011, the nation's top 10 groups had an average of 56.9 affiliates each, a 4.2-fold increase from 10 years ago. Meanwhile, the top 11th to 20th groups and the top 21st to 30th groups increased the number of affiliates by 4.7-fold and 3.9-fold, respectively, over the same period.

However, SMEs suffered because of big conglomerates' monopoly or oligopoly and unfair business deals as much as big conglomerates expanded their power. Therefore, big conglomerates are ceaselessly criticized for their insufficient efforts for mutual growth with SMEs, despite their remarkable contribution to the economy.

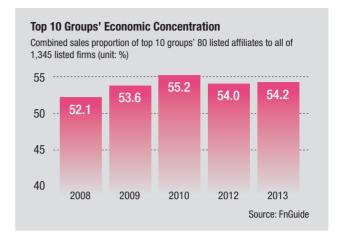
Many people support the assertion to stop the concentration of economic power and big conglomerates' indiscriminate expansion, and the President-elect has shown active gestures for the growth of SMEs, thus increasing expectations among people. Indeed, this kind of mood has been created apparently because of the over-expansion of big conglomerates during the global economic crisis.

In fact, national economic power has been biased toward big conglomerates not only because of their own efforts to sharpen their competitive edge, but also because of the government's export-oriented economic policies, big conglomerates' abuse of market dominance, unfair business practices, including inter-subsidiary deals, and the like.

"It is true that large export companies contributed significantly to national economic growth in recent years. It means our economy is export-oriented," said Shin Min-young, an economist at LG Economic Research Institute.

Lee Sung-bok, from Korea Capital Market Institute, said, "On the back of big conglomerates' neighborhood market dominance and economic power expansion were their quality goods and strong competitive power. Chances are that we will see even more excessive concentration of economic power in big conglomerates."

Critics claim that big conglomerates have constantly denied SMEs' margin by pushing down supply prices in the collaboration process and using their dominant market position. In short, the sacrifices made by SMEs have resulted in conglomerates growing even further.





President-elect Park Geun-hye has a brief meeting with business leaders at the Korea Chamber of Commerce and Industry (KCCI) on January 9, 2013.

However, some people claim it is not appropriate to connect this sacrifice to the growth of big conglomerates.

"Neither Samsung Electronics nor Hyundai Motor is making a living at home. When it comes to concentration of economic power, it isn't sensible to say big conglomerates have grown by taking earnings from SMEs," said Baek Heung-ki, head of the industrial policy office at Hyundai Research Institute.

Nevertheless, many experts agree that we cannot solve the concentration of economic power in big conglomerates if we simply give benefits to SMEs and fail to strengthen their competitive power.

"The president-elect promised to stop big conglomerates' unfair business deals and support SMEs with more funds, human resources and technologies. However, she missed one thing. We need a policy that helps SMEs strengthen the competitive power on their own," said Kim Sang-jo, Professor of International Trade at Hansung University.

In other words, more than a few SMEs are living on the government's policy funds, with their competitive power lost, meaning that the government must weed out such firms through drastic restructuring.



KOREA SMALL BUSINESS INSTITUTE

Reliable Partner for Small Businesses in Korea

Creating virtuous cycle between large and small companies is key to surviving global competition



ur most important goal is to help small business and venture firms providing creative technologies take their place in a virtuous cycle," said Dr. Kim Dong-sun, President of the Korea Small Business Institute (KOSBI), stating the interview. He continued, "Korea can beat the current economic recession and reach a per-capita GDP of US\$30,000 only in the presence of competitive SMEs, or small and midsize enterprises, and my staff and I will be a foothold for them to achieve growth in the global arena."

His remarks show his strong desire to foster small businesses. Not surprisingly, he previously worked as head of the Small & Medium Business Administration.

"I've been to Israel as of late and found that the country's technology foundation system can be a role model for small businesses in Korea," the head of KOSBI said, adding, "Interestingly, entrepreneurs in Israel were envious of Korea for having global market leaders and large businesses." Even if he said it neutrally, he seemed to miss a virtuous cycle between big and small corporations in Korean business world. It would mean Korea is failing to put to optimal use its advantage in terms of industrial structure."

Throughout the interview, the interviewer could not get rid of the idea that the new Park Geun-hye administration, which pledges economic democratization, should be well advised to listen closely to the voices of experts like him with abundant knowledge and experience in the SME-related

Spearheading Joint Growth between Big and Small **Businesses**

These days, economies around the world are striving for job creation and domestic consumption growth. Korea is no exception in this trend. Key to this goal is the growth of SMEs, which account for 99% of the total number of companies and 88% of employment.

"Under the new government, we'll focus on policies to enhance SMEs' competitiveness, while researching the common prosperity of large and small businesses," said the CEO, adding, "Specifically, we'll make various efforts to cover the weaknesses of venture and startup firms in financing, employment, marketing and technological R&D, as well as look at how to protect them from large companies' unfair business practices, such as price dumping, inter-company transactions and entry barriers for market infringement."

Leading Think Tank for Local SMEs

The chairman stressed the importance of practical, viable policy measures and the expansion of the role beyond research to education, training and consulting in order for KOSBI to become a leading think tank.

"In regards to specific actions plans, we're refining our statistical systems to provide more helpful research data on issues associated with small-scale firms, while benchmarking and exchanging data with our counterparts in advanced economies and international organizations such as the OECD," added, "Furthermore, we're making full use of our database for policy financing programs, and R&D support result analysis, and so on, as well as trying to further raise policy efficiency by means of feedback from interested parties." In this vein, the KOSBI is planning to build more systems for self-reporting by potential beneficiaries and utilize past project results in conjunction with relevant government authorities.











In the meantime, the organization has employed approximately ten more research analysts since his inauguration last year. More than 50 researchers are currently working on matters such as venture foundation, win-win growth, the globalization of SMEs and knowledge service. "In fact, I don't think they suffice," he said, adding, "I'd like to hire more research personnel so as to better deal with newly emerging policy demands and industrial issues."

The KOSBI has also exerted great efforts for cooperation with foreign entities. It is in this context that the institute has signed agreements with Taiwan's Industrial Technology Research Institute, the China Center for Promotion of SME Development, and the China Center for Information Industry Development. "We've learned a lot from the two countries, both of which have an industrial structure centered on small firms," adding, "Furthermore, we're expanding networking and cooperation with Israel and Silicon Valley in the United States in order to establish better startup ecosystems and financing support systems."

SMEs Should Not Be Content with Domestic Market

With regards to the greatest challenge for SMEs in Korea, he mentioned the small-size of firms guaranteeing little profitability, their structural dependence on major corporations, and the lack of attempts to open up overseas markets. To combat this, he proposes self-developed technologies, globalization in tandem with large companies, and the removal of unfair, imbalanced and unreasonable business practices.

"To this end, we need to assist technology foundation and overseas marketing, while helping companies manage risks related to trade, insurance and foreign exchange," he The KOSBI has exerted great efforts for cooperation with foreign entities. It is in this context that the institute has signed agreements with Taiwan's Industrial Technology Research Institute, the China Center for Promotion of SME Development, and the China Center for Information Industry Development

added, "I will also introduce necessary tighter restrictions and regulations regarding big businesses' malpractices, such as technology theft and market encroachment."

Sharp Competitive Edge Key to Survival

The Korean economy has entered a phase of low growth. The annual economic growth rate is estimated to be below 3%, with the aging of society progressing at a fast pace. Economists are concerned about the repercussions, including a slowdown in employment and investment, deteriorating business and export conditions, and soaring debt burdens on the government, households and enterprises.

"In order for our society to thrive, SMEs should do their part by sharpening their competitive edge, independently of government aid, and seeking new business models through hardware-software, information-knowledge convergence, and technological development." He wrapped up the interview by saying, "The huge popularity of Psy's Gangnam Style and the mobile game Anipang can be nice overseas marketing lessons for them. Efforts in human resources training and recruitment must also continue."









Special Report

NUCLEAR ENERGY OVERVIEW

Still Important Paradigm for Growth

Korea's future export competitiveness will derive from nuclear energy



A tomic energy is so closely connected to people's lives these days that the 21st century is often called the era of the renaissance of nuclear power. Atomic power generation has further increased its importance this century as a key element of green growth, one that is capable of addressing environmental problems such as global warming.

Many countries around the world are resorting to atomic power as the only energy source able to take the place of fossil fuel-based power generation systems because it emits almost no greenhouse gases directly related to global warming. Furthermore, nuclear power is characterized by its low level generation costs and high economic feasibility

through the entire life cycle; from construction to the decommissioning of a power plant. Considering the external environmental effects of carbon emission costs, no one can deny the necessity of nuclear power in today's world.

It is well known that most fossil fuels tend to be concentrated in certain areas of the world, thus complicating mining and distribution for some countries. In contrast, uranium is found throughout the globe and can produce more energy than any other source.

Still, it is also true that atomic power has serious safety problems to deal with, as seen by the Fukushima disaster. Furthermore, the entry barrier for atomic power is still very high due to high technological and capital requirements.

Atomic Power Industry: Arena of Struggle among World Powers

As of 2010, Korea was running a total of 20 atomic power plants, making it the world's fifth largest nuclear power generator, following the United States (104 plants), France (58), Japan (54) and Russia (32). The ratio of nuclear power-based electricity generation is very high in these countries, all of which are capable of building their own atomic power stations. These nations are dominating the international nuclear power market, having the inside track in competition which is being led by governments rather than private-sector enterprises.

These countries have been rushing to build more and more nuclear power stations while also refining related technologies in order to cope with the potential exhaustion and fluctuation in price of fossil fuels. According to recent data, 490 new nuclear plants are slated to be completed by 2030, increasing the global market size to approximately 2.900 quadrillion won. Such huge growth potential has led nuclear power plant exporters such as the US, France and Korea to focus their resources on the sector as one of their future growth drivers.

The construction of commercial reactors, which are seen as the backbone of atomic power stations, has been spearheaded by three multinational corporate groups since the beginning of the centu-





ry - the consortium of Westinghouse and GE; the one of Toshiba Heavy Industries, Areva and Mitsubishi Heavy Industries; and the one of GE and Hitachi Heavy Industries. Korea has been rapidly emerging as a reactor builder and operator and component exporter. In December 2009, it exported research reactors to Jordan and won a nuclear power plant construction contract in the United Arab Emirates, allowing it to join the ranks of industry leaders. Doosan Heavy Industries and Samsung C&T Corporation are currently taking part in the project as the main equipment supplier and builder, respectively.

However, the 2011 Sendai earthquake has hindered growth in the industry, spoiling the rosy picture in a twinkling of an eye. The nuclear power industry has been uneasy following events in Japan. Germany, for example, has shut down all atomic stations built in or before the 1980s. Meanwhile, China has for the moment put off plans to build new atomic power stations.

To compound the matter, current technology is failing to handle nuclear waste more effectively, an issue that has been a headache for many countries for quite a while. Under such circumstances, the future of the nuclear power industry is still considered up in the air.

Significance of Nuclear Power Lies in Energy Security and National Interest

Amid such global uncertainties, the Korean government is striving to become one of the top three nuclear power supplies in the world, with its policy direction unchanged since the catastrophe in Fukushima.

Of course, it cannot be denied that Korea's nuclear power policy has lost people's trust as of late in the wake of the attempt to conceal a power failure at the Kori Plant, the cracking of reactor guide tubes at the Yeongkwang Plant, and a series of procurement scandals, etc. Nevertheless, the policy has significant influence on the nation's economy and people's lives and thus all related decisions should be made only after full consideration of energy supply and security.

In 2011, Korea's energy imports amounted to US\$172.5 billion, equiva-

lent to 33% of the nation's total imports that year. Petroleum, natural gas and coal took up 99% of these imports, while uranium accounted for less than 0.5%. This clearly shows that atomic power is rarely vulnerable to oil price fluctuations, and can thereby contribute greatly to energy security.

Korea has world-class nuclear power generation technologies and its name has not been mentioned in regards to accidents rated Level 3 or higher on the IAEA's International Nuclear and Radiological Event Scale. Its self-developed next-generation power plant model APR1400 has a lifespan 20 years longer than its previous model, OPR1000, and comes with a significantly improved generation capacity, the ability to endure a magnitude 7 earthquake on the Richter Scale, not to mention satisfying the latest requirements of the United States, Korea and the IAEA.

A lot of attention is being paid to what direction the Korean government will take down the road in its attempts to meet the national challenge of energy procurement and make further inroads into global markets.

Nuclear Power Plant Status by Country

Country	End of April 2010		2009		
	Number of Plants in Operation	Installed Capacity (GW)	Nuclear Power Supply (A. TWh)	Total Power Supply (B. TWh)	Nuclear Power Ratio (A/B, %)
United States	104	100.7	796.8	3,951.1	20.2
France	58	63.1	390.0	518.8	75.2
Japan	54	46.8	260.0	900.1	28.9
Russia	32	22.7	153.0	858.5	17.8
Korea	20	17.7	141.1	405.7	34.8
United Kingdom	19	10.1	62.9	350.7	17.9
India	19	4.2	14.7	683.3	2.2
Canada	18	12.6	85.3	575.3	14.8
Germany	17	20.5	127.6	488.8	26.1
Ukraine	15	13.1	77.8	160.1	48.6
China	11	8.4	70.1	3,714.7	1.9
Sweden	10	9.3	50.0	133.7	37.4
Spain	8	7.5	50.5	288.9	17.5
Belgium	7	5.9	45.0	87.0	51.7
Taiwan	6	5.0	n/a	n/a	20.7
15 Others	40	21.4	185.0	1,590.7	11.6
30-country Total *	438	372.0	2,509.8	14,707.4	17.1

Note: Taiwan is excluded from the nuclear power supply and total power supply for 2009 of the row of the 30-country total. Source: IAEA PRIS Database as of End of April 2010



ATOMIC ENERGY

Not Option But Requirement

Nuclear power plant export a key new growth engine for Korea



ountries around the world are striving to get ahead in the energy war of the 21st century. With the situation as it is, the importance of the nuclear power industry and its potential as an alternative to fossil fuels is receiving more attention than ever. What follows is a special feature interview with Choi Tae-hyun, Director General for Nuclear Power Industry at the Ministry of Knowledge Economy, regarding the current status and future prospects of the industry, as well as related government policy.

Interest in the nuclear industry is very high these days. Please tell our readers about the overall direction of the Ministry's atomic power generation policy for this year.

For Korea, nuclear power is not an option but a must, at least for a while, due to the country's dependence on imported energy being as high as 96%, the necessity to respond to climate change and the need for a stable supply of electricity. In order for the industry to continue its sound growth, it has to gain people's trust above all else.

Unfortunately, a few scandals have tarnished the reputation of nuclear power generation in Korea, including concealment of a recent outage at the Kori Plant, the falsification of quality certificates and various procurement frauds.

Under such circumstances, the ministry is aiming at three goals this year. Firstly, it is striving to enhance the safety of nuclear power stations and management transparency so that nuclear power can regain peoples' trust. Secondly, it will speed up the globalization of the nuclear power business by augmenting exports. Lastly, it will suggest more long-term measures regarding the management of spent nuclear fuel, and the decommissioning of old nuclear power plants, etc.

What is the current status of the atomic power plant construction project in the UAE which began in 2009? What plans do you have for additional exports to the region?

The project, which is one of the largest in the history of Korea's plant engineering industry, is to build four 1,400MW-capacity nuclear plants in the UAE by 2020. The project is approximately 15% completed now, well ahead of progress.

The construction permit was obtained in July last year from the Federal Agency for Nuclear Regulation (FANR) of the UAE. Four months later, President Lee Myung-bak, the Ministry of Knowledge Economy and Sheikh Mohammed bin Zayed Al Nahyan, the Crown Prince of Abu Dhabi, attended a Commemoration Ceremony for the Initiation of Nuclear Construction.

The first unit, in fact, is currently taking concrete shape. The reactor will







be installed in or before July 2014, with completion scheduled for 2017. Korean companies will continue to take part in its operation, repair and maintenance even after completion.

What do you think is the competitive edge of Korean nuclear power companies and their technologies, and what is the government doing to enhance their international competitiveness?

Korean nuclear power companies have accumulated technological expertise, price competitiveness and operation know-how since the 1980s by building a series of atomic power stations. At present, their safety standards are considered to be on par with or higher than those of global industry leaders. Only six countries, including Korea, the United States and France, are currently capable of exporting nuclear power plant technologies. The economic ripple effect of this high-tech industry, needless to say, is huge.

The Korean government has made significant efforts in some target countries, such as Finland, Vietnam and Turkey, to clinch more deals by holding high-level meetings and sending export delegations. At the same time, it has cooperated closely with Saudi Arabia, Egypt and other countries planning to adopt nuclear power in the near future in terms of infrastructure establishment, engineer training, etc.

Last but not least, the government has refined its power plant design technology in consideration of the characteristics and specific needs of such countries, while supplying more and more engineers and technicians for the construction and operation of atomic power plants.

What are the future prospects of the global nuclear power industry for 2013?

Nuclear power-generating countries are currently sticking to their previous policies or are reconsidering them in the wake of the Fukushima disaster. For example, European nations such



as Germany, Italy and Switzerland are scaling down nuclear power generation as they have easy access to alternative or imported energy. However, the majority of countries have found it inevitable to rely on nuclear power generation for reasons such as increasing energy demand, economic feasibility and climate change.

A series of orders for new nuclear plants are expected to appear, mainly from the Middle East, Asia and Eastern Europe from 2013, while Finland, South Africa, Hungary, Poland and Saudi Arabia are preparing to place new orders within the next two years. Russia and China are beginning to make inroads into the market, one traditionally dominated by the US, Japan and France, and this signals tougher competition in the future.

Are there any signs of distrust overseas regarding Korean nuclear power plants? It so, what can the government do to countermeasure such issues?

In the UAE, we have already given sufficient explanations regarding the recent scandals, and other countries appear to have little interest in the incidents. However, the Korean government will introduce plant management improvement measures and industrial innovation plans down the road in an attempt to further boost the industry's safety and transparency standards.

66 The Korean government has made significant efforts in some target countries, such as Finland, Vietnam and Turkey, to clinch more deals by holding highlevel meetings and sending export delegations 99

What does the ministry plan to do in regards to public relations?

The number one virtue for nuclear power generation is safety and security, and the government is moving ahead with a policy that focuses on the safety-first principle. It has implemented a set of safety enhancement measures since the Fukushima accident that aim to deal with unexpected natural disasters. Furthermore, it has exerted every effort in regards to preventive maintenance, equipment replacement, quality assurance, best value bidding and participatory management.

The government is well aware of the fact that public trust and safety matter the most in terms of effective nuclear power generation policy. It will continue providing accurate, easy-to-understand information, make the entire management processes transparent, and guarantee public participation in terms of policy so that people can be at ease.











Nuclear Fuel Development Master Services Agreement for SMR

For KEPCO Nuclear Fuel Co., Ltd, or KEPCO NF (CEO Kim Ki-hak), which is striving to become a leading nuclear fuel cycle company, the New Year has become more meaningful than ever as it kicked off the year by winning a contract to export nuclear fuel technology for the first time to the

Earlier this year, the company laid the groundwork to gain an advantage in the export market for nuclear power software by winning a deal from NuscalePower, a U.S. nuclear energy firm to develop nuclear fuel for a small modular nuclear reactor (SMR).

Since its founding in 1982 to domestically produce nuclear fuel used in nuclear reactors, , the Korean firm has supplied safe, high-quality fuel to 23 domestic nuclear power plants. It has played a pivotal role in the nuclear power industry, one of the country's key industries, as evidenced by its winning of a series of awards both domestically and internationally, including winner of the "Excellent Companies of Quality Competitiveness Award" for 12 years.

KEPCO NF was also selected to supply nuclear fuel service equipment to the Chinese SNZ worth US\$4 million in 2012 after concentrating its efforts on exporting specialized technologies developed in-house. The company has significantly boosted the international standing of Korea's nuclear power technology by exporting nuclear fuel cladding to the U.S. to develop nuclear fuel

Setting Global Standards for Nuclear Fuel

KEPCO NF has developed original technologies for nuclear power

for small nuclear reactors in the US.

Its expansion overseas, beginning in 2002 with the export of nuclear fuel components, led to overseas sales topping 8 billion won in 2012. The company plans to devote all its energy to achieving a new export target of more than 15 billion won in 2013, a figure which would signify a very real turning point in its overseas business.

In his New Year's speech, CEO Kim Ki-hak said, "Overseas business is where we can display our technological prowess and capabilities to the fullest, as well as it being an infinite source of revenue."

Consistent R&D Investment towards **International Market**

Since its founding, the company has consistently concentrated its R&D investments on nuclear power technologies, obtaining final license for core design codes from regulatory authorities after securing original technology, and striving to develop technologies as part of efforts to secure global competitiveness, such as creating a unique nuclear fuel called HIPER 17.

Apart from such developmental efforts, the firm has spared no efforts in nurturing R&D employees. It currently employs some 280 workers involved in technological development and is one of the top domestic public enterprises in terms of R&D investment-to-sales ratio. Such a record is backed up by the fact that the company initially began as a research-oriented institute.

These efforts have led to the honor of it being inducted into the "Hall of Fame" along with winning the "Excellent Companies of Quality Competitiveness Award." In addition, its technological prowess has resulted in its receiving a series of top awards, including Global Standard Management Awards and International Business Awards.

The company is also speeding up efforts to successfully implement new large-scale projects it has been pushing forward with. Soon after completion of the basic design phrase for the extension of a third nuclear fuel plant, the company will begin efforts to award a manufacturing equipment contract and start before starting on construction of a new site.

This year, the company plans to kick-start a project to domestically produce heat-transfer pipe, and undertake various major projects, such as the establishment of a manufacturing facility for new fuel used in heavy water reactors and construction of a complex used for managing radioactive waste.

In particular, with the launch of the new administration, the company, while watching closely the direction of the national energy policy, will faithfully carry out its duties and role as a public enterprise, and thereby contributing to national economic development.

CEO Kim said, "Based on the lessons we've learned over the past 30 years, KEPCO NF will move forward internationally," adding, "Although the economic forecast for the year is not as bright as last year, based on a smooth growth trend expected in the second half of this year, let's make another leap forward and solidify our position as the world's leading nuclear fuel company." ®











KEPCO E&C

The Most Prominent Nuclear Power Plant Designer

KEPCO E&C's 3-step multi-defense system ensures top-class safety

Kyoo) was founded in 1975 with the objectives of designing nuclear and thermal power plants, developing related technologies, and accomplishing technological independence. The company was selected as the main designer of Younggwang Nuclear Power Units 3 and 4 in 1987, and Ulchin Unit 3 in 1993. Since then, KEPCO E&C has designed all domestic nuclear power plants on its own and become the nation's only designer of nuclear power plants.

KEPCO E&C has developed and applied technologies for nuclear design on a gradual basis; first the technology for Korean Standard Nuclear Power Plants called "Optimized Power Reactor (or OPR) 1000," the one for more secure and economical model "Improved OPR 1000," and then the one for the world-class next-generation light water reactor "Advanced Power Reactor (or APR) 1400." The company's APR 1400 was used in the 2009 nuclear power plant project in the United Arab Emirates, the first time Korea had exported nuclear technology.

A Role Model for Upgraded Nuclear Safety

KEPCO E&C's nuclear design capability ensures top-class safety based on 38 years of experience and up-to-date technologies. It also satisfies safety design standards advised by the International Atomic Energy Agency (IAEA). Unlike many countries which have stopped construction of nuclear power plants since the Fukushima nuclear incident, KEPCO E&C has learned lessons from the incident, stepping up efforts to



develop new technologies, and enhancing safety by constantly applying new technologies.

The Fukushima nuclear incident gave an opportunity to have a harsh look at nuclear safety and design in regards to natural disasters. For two months following the incident, Korea conducted government-led comprehensive safety tests; 21 functioning reactors' structural safety against earthquakes and tsunamis, and flood preparedness in six fields such as electric power control, cooling system and serious incidents. Experts from KEPCO E&C participated in the process. In particular, they analyzed the causes of the Fukushima incident in terms of nuclear design and came up with 50 mid and long-term design improvement factors, including 46 construction-related factors, designed to enhance safety. These factors are now being applied to nuclear design.

KEPCO E&C's design improvement factors focus on a multi-defense system that can ensure safety even in the very worst situations. In designing nuclear power plants, site attributes are considered along with assumptions of an extreme environment.

Multi-Defense System Ensures Topclass Safety

KEPCO E&C's multi-defense system operates in three steps, with the details of each step as follows:

The first step is to extend coastal barriers and install watertight gates so as to maintain the soundness of the nuclear reactors against natural disasters. The second step is to respond to a situation where the extended coastal barriers and watertight gates fail to prevent breakdown and flooding; more specifically, to secure power vehicles and condensers as well as external emergency cooling water sources and ways.

In a situation where the second step fails, the third step begins in order to maintain the soundness of separate buildings and respond to multiple breakdowns. This includes the installation of electricity-free hydrogen removal equipment dedicated to serious incidents and emergency plans to provide separate protection for individual reactors.

Based on a consensus by regulatory organizations, project clients and related parties, the multi-defense system is being actively applied to new designs as well as currently operating nuclear units.

KEPCO E&C is the only nuclear designer in the world which designs both nuclear steam supply systems and architect engineering. Experts believe its special nuclear design capability has played a pivotal role in enhancing the safety of Korean nuclear reactors.







(1)

KEPCO KPS

Expanding the Business Horizon

The power engineering state-run company is striving to be all-round player in energy and power generation industries

KEPCO Plant Service & Engineering (KEPCO KPS, CEO Tae Sungeun), which was renamed from Korea Plant Service & Engineering back in January 2007, is one of the most well-known state-owned enterprises in the energy sector of Korea. It was listed on the local stock market in December of the same year.

The company is in its prime these days, expanding its scope of business from the operation of power generation facilities of its parent company Korea Electric Power Corporation (KEPCO) to the development of industrial plants, private-funded power generation facilities, cogeneration and isolated power plants, energy-related projects, etc. It entered the alternative energy industry by setting up the New & Renewable Energy Center in 2007 and signed MOUs with Kookmin Bank and Hana Bank for cooperation in the field of photovoltaic power plant construction and operation to turn itself into an allround energy company.

Such efforts have brought the company the Top Quality Competitiveness Enterprise award for 14 consecutive years for the first time in the public sector. The prestigious prize granted by the Korean Agency for Technology and Standards of the Ministry of Knowledge Economy evidences KEPCO KPS's endeavor for sustainable enterprise management and service quality innovation both at home and abroad.

"We've set an example by winning the highly coveted prize for 14 years in a row and I'd like to thank all of my employees for their dedicated efforts," said the CEO at the awarding ceremony, adding, "Down the road, we'll redouble our efforts so we can continue



KEPCO KPS participated in the parent company's consortium of Amman Asia Electric Power Company (AAEPC) in Jordan to win the contract for the operation and maintenance of the IPP3 diesel power station

our growth as a globalized company putting the market and customers first, cooperating with all interested parties and serving their needs, and fulfilling our social responsibilities."

KEPCO KPS is focusing its resources on overseas market penetration, too. In this context, it signed a business contract with Gujarat Mineral Development Corporation (GMDC) Ltd. in India on January 8 for the operation and maintenance of the ATPS Thermal Power Plant.

The power station located in the Gujarat Province consists of two units

of facilities, each having a capacity of 125MW. The project is worth a total of 91 billion won and continues for 15 years from February 1, 2013. KEPCO KPS made use of its power facility operation and maintenance know-how and expertise as well as its networks in India to beat four competitors, including Tata Power, and clinch the deal.

Earlier than that, KEPCO KPS participated in the parent company's consortium of Amman Asia Electric Power Company (AAEPC) in Jordan to win the contract for the operation and maintenance of the IPP3 diesel power station. The 600MW-capacity IPP3 power plant is located approximately 30km away to the east from the capital city of Amman. The project was launched by the Central Electricity Generating Company of Jordan.

A total of US\$1 billion is scheduled to be invested in the undertaking, which is equivalent to 118.8% of KEPCO KPS's sales for last year. Once the power station is completed, the company is slated to provide power plant operation and maintenance services for 25 years and six months. It has set up its 12nd overseas office in Jordan to carry out the business.

"We opened up the global market back in 1998 by winning the operation and maintenance contract for the GMR diesel power plant in India and have done successful business since then in Vemagiri, Chanderiya, Jharsuguda, Balco, Wardha and Wadi," said one official of the company, continuing, "Through the ATPS thermal power generation project, we'll present our high-quality services and advanced technologies to further solidify our presence in the local market."







KOREA HYDRO AND NUCLEAR POWER CO (KHNP)

At the Forefront of Nuclear Power Industry

All-out efforts are focused on prevention of accidents

Nuclear power accounts for approximately 31% of the total electricity supplied to the Korean people. To ensure stable power supply in an era of high oil prices, climate change and soaring demand for electricity, experts point out that nuclear power is not a choice but a necessity. They agree that the Fukushima nuclear incident should be recognized as an opportunity to upgrade the safety of domestic nuclear reactors.

Korea Hydro and Nuclear Power Co (KHNP, CEO Kim Kyun-seop), playing a pivotal role in the Korean nuclear industry, has conducted in-depth examinations of the nation's nuclear power facilities and tried its best to enhance safety since the Fukushima incident.

Nuclear Power Solution Lies in Safety, not Economical Efficiency

To ease national anxiety about the safety of nuclear power, KHNP conducted internal safety tests and participated in government-led safety tests at domestic nuclear facilities, as well as an in-depth examination of Kori Unit 1.

Domestic nuclear power plants are designed to have their sites and facilities protected against earthquakes and tsunamis. Nevertheless, the company decided to enhance the safety even more. For example, in the case of the Kori Units, which have relatively lower protection against tsunamis, we have been extending costal barriers to a height of 10 meters, the same as other units.

Furthermore, to prevent possible flood damage to the emergent power control systems and safety facilities, we will complete anti-flooding work on ventilation systems, as well as install anti-earthquake watertight gates in all the nation's nuclear power plants by 2014. We will also secure watertight drainage pumps, according to optimal improvement plans established by outsourced professional designers, by the end of 2013.

KHNP Develops Many-sided Safety Plans and Measures

Regarding the safety of structures and buildings against earthquake, KHNP manages nuclear power structures and buildings designed to endure quakes larger than the possible maximum magnitude. In the event of such large earthquakes, the nuclear reactors automatically stop operating.

In regards to the safety of structures and buildings against tsunamis, KHNP has confirmed that all of the nation's nuclear units are safe, despite the possibility of submarine earthquakes in the Western Sea of Japan that may influence the Korean peninsula.

With the assumption that emergent power control systems, after-use fuel storage cooling systems and other kinds of safety facilities are flooded, KHNP will have additional watertight gates and drainage pumps in order to prevent flooding at those areas.

The safety tests also confirmed that there are no problems with power control and cooling systems, even during flooding, because all Korean nuclear units are designed to have multi-operating systems with external and internal power supply channels. Even in the case of losing both power supply chan-



nels, every nuclear reactor has two sets of independent power generators and a substitute emergent power generator.

To respond to the worst scenario that all cooling systems go down and fuel melts inside the reactors, KHNP plans to secure up-to-date hydrogen removal equipment and real-time hydrogen density detectors.

Learn Lessons from Fukushima

For the safety of nuclear power, we first need to upgrade safety plans and measures against natural disaster and earn trust from people.

It is obvious that nuclear power should become the most fundamental energy source when considering many situations in and out of the country. If a problem such as what happened at Fukushima occurs, the situation could become irrevocable. Therefore, the safety issues cannot be ignored.

Nuclear power stands at the middle of fossil fuel, like oil, coal and natural gas, and renewable energy sources like sunlight, bio-energy and wind. Nuclear power involves the inevitable problem of radioactive elements, but at the same time serves as a stable mass-supply energy source. It is indeed like a stepping stone, one connecting the present and the future.

In order for nuclear power plants to produce electricity more safely until other kinds of sustainable energy sources are developed, and to make people feel safer, KHNP will make ceaseless efforts to make nuclear power safer.







SAMSUNG C&T

Expanding Its Own Value Chain

As a market creator and innovator, the Korean building giant is aiming high in the global construction market



This year, Samsung C&T Corporation (CEO Jung Yeon-joo), is redoubling its efforts to become a unique global company through continuous innovation in spite of unfavorable global business conditions. To this end, it has established specific action plans for human resources development, professionalism, differentiation for competitiveness, and concentration on new growth engines.

Opening Up Global Markets as Market Creator and Innovator

Samsung C&T is aiming to increase its standing in the global market through aggressive market expansion and product diversification. "We're expanding our value chain to cover EPC and project development, and are refining our marketing competence for clients and customers," it said, adding, "We'll increase our overseas business ratio to over 70% this year to become a global top-class builder." Such endeavors are already bearing fruit. Last year, the company set a new record in terms of the value of overseas orders after clinching contracts worth US\$5.5 billion in total.

The company is also faring particu-

larly well in emerging markets such as Hong Kong, Mongolia, Qatar and Indonesia. Samsung reorganized itself late last year to enhance its global business capabilities. In 2013, it will continue to set up overseas offices in the corporate framework.

Endeavoring to Penetrate Nuclear Power Generation and Emerging Markets

In particular, Samsung C&T is concentrating on its role as an independent power producer (IPP) and public-private partnership (PPP) for market leadership, while providing visible business results in the healthcare and mining fields.

It signed an early contractor involvement (ECI) agreement for a port construction project in Australia in 2012, and was also selected as the preferred bidder in a healthcare project in Turkey. The company intends to strengthen its global business portfolio by combining them with its expertise in the construction of long-span bridges, high-rise buildings and power generation plants.

It also continues to solidify its market dominance in existing target markets such as Southeast Asia and the Middle East, while making more aggressive inroads into Southwest Asia, Central Asia, and Latin America, etc. It is also aiming to enter advanced markets such as North America and Europe, areas where few Korean builders operate, in order to win a meaningful number of new orders.

Samsung C&T's additional strength lies in its diversified plant engineering portfolio. The company has shown excellent performance in nuclear power plants, energy storage facilities, new and renewable energy facilities, and environmental plants, etc.

It is currently wrapping up the Shin-wolseong 2 nuclear power plant project in Korea, with its technological strength and project management capabilities well recognized by global players. It also formed a consortium with Hyundai E&C back in late 2009 to lead the export of atomic power stations to the United Arab Emirates. Meanwhile, in August 2012, it was selected as a partner with SK E&C for a nuclear power plant construction project in Finland.

The undertaking was launched by TVO, a private-sector power company in Finland, to set up a power station with a total capacity of 1,400MW. Once Korea Hydro & Nuclear Power, the project managing company, wins the bid scheduled for the first half of next year, Samsung C&T will be actively participating in all Korean overseas nuclear plant construction projects, including the Barakah project in the UAE.

Focusing on Enhancement of Global Business Capabilities

Samsung C&T emphasizes the importance of a globalized corporate structure, saying that every world-class enterprise has top-notch professionals and the spirit to break the status quo. "We'll follow the precedents by attracting global human resources and assist them in developing themselves so that our expertise and professionalism can be redoubled," said the CEO.

"At the same time, we'll keep changing our corporate culture for the better by means of transparent, future-oriented, innovation-centered management," he said, adding, "We'll make the most of our business infrastructure, including the global ERP completed last year, to raise the efficiency of our marketing and business management."







DOOSAN HEAVY INDUSTRIES & CONSTRUCTION

Moving Forward with Technological Power

The Korean general facility manufacturer has positioned itself as the world's leading supplier of main equipment for nuclear power plants

Doosan Heavy Industries & Construction (DHIC) has earned world-class technological power through perfectly executed quality control, and is now pushing through the worldwide economic recession on its own.

Having begun as Hyundai Yanghaeng in 1962, the company changed to Korea Heavy Industries (or "Hanjung") in 1980 and to its current name in 2001. DHIC has various types of industrial manufacturing facilities; for example, its casting factory yields 15,000 tons of products per year using electric furnaces; the forging factory owns a 10,000 ton press, a piece of rare equipment worldwide; the turbine factory produces turbines, the core equipment for power plants; and the nuclear equipment factory manufactures main equipment for nuclear power plants, such as nuclear reactors, steam generators and pressurizers. With these facilities, DHIC has led the nation's industrial plant market in regards to power generation equipment, desalination plants, environmental facilities, transportation and unloading equipment, etc.

DHIC's competitiveness in technology is based on innovation and excellent human resources, as well as customers and quality. As technologies continue to become more sophisticated and advanced, DHIC has spurred the development of the world's best core technologies in the belief that technology is the company's future.

Thanks to the hard work of its researchers in regards to new materials, new products and new technologies, DHIC won the President's Award at the Precision Technology Contest in 1997 and the IR52 Jangyoungshil Award (one of the nation's most respected science awards) in 1998. Its R&D center was selected as the nation's excellent corporate research institute in 2000. Furthermore, two of its products were recognized as global top-tier products by the Ministry of Knowledge Economy in 2012; the steam generator for commercial nuclear power plants and the forged-steel reinforced roll for plate rolling processes.

Strong Technological Power Has Led to Nuclear Power Generation Business

DHIC clearly shows its global competitiveness in the nuclear power industry. As the nation's leading supplier for nuclear power plants, DHIC supplies not only main equipment such as nuclear reactors and steam generators, but also various kinds of auxiliary equipment such as turbines/power generators, and nuclear fuel handling and transporting equipment.

There are only two companies in the world that have such one-stop production capability; DHIC and AREVA (France). Furthermore, there are only three companies in the world that have the capability to supply casting and forging materials for nuclear plants' main equipment; DHIC, JSW (Japan) and CFI (France).

Kim Ha-bang, Vice President of DHIC (head of nuclear power plant BG) said, "While most nuclear plant equipment producers have been in a slump



with new projects reduced, DHIC has accumulated affluent technological knowhow through steady nuclear plant projects. DHI has now secured global competitiveness in supplying main equipment. I am very proud of this." DHIC recently completed development of Man-Machine Interface System (MMIS) and Reactor Cooling Pumps (RCP), which was the last task in manufacturing main equipments for nuclear power plant, and will be applied to Shin Ulchin Units 1 and 2 which are currently under construction.

In particular, it signed approximately 5 trillion won worth of contracts to supply devices and equipment for power generation, significantly contributing to the company's 2-year consecutive "10 trillion won club" membership

In recent years, DHIC has positioned itself as a global power generation company that owns fundamental technologies for boilers and turbines after taking over Doosan Babcock (the UK) and Skoda Power (Czech). Last year, it acquired an Indian boiler producer Chennai Works in order to make inroads into India, which is emerging as the world's largest coal power market, and Lentjes (Germany) which owns technologies for environment-friendly power generation, such as fluidized bed combustion boilers and flue gas desulfurization. DHIC plans to make profitable growth in the power generation field by strengthening its competitiveness in the EPC business and expanding its devices and equipment business.









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Industry & Company

KOREAN RE

Determined to Rank one of World's Top Five Reinsurers

Korean Re, which was virtually in bankruptcy at the time of the Asian financial crisis in 1998, has now emerged as the 10th largest reinsurer in the world, and number one in Asia



Behind the brilliant success of Korean Re, there has been a strategic leader who accentuated the importance of corporate culture and human resources. He is CEO Park Jong-won who retired from the former Ministry of Finance and joined the company following the Asian financial crisis. He created constructive tension in the organization and nurtured the "wild nature" of employees. BusinessKorea sat down

with him to hear about the secret of his success.

Is there any special knowhow or strategy that has made Korean Re such a success in the world financial market?

Thriving companies and collapsing companies have different corporate cultures. Korean Re has been reborn as the Asian number one and world number ten, largely because it has changed its corporate culture. If a company wants to make a big dream come true, it should change its corporate culture and atmosphere.

When I joined Korean Re in 1998, it was nearly bankrupt with net losses of 280 billion won. However, the more serious problem was the atmosphere of defeatism prevailing within the company. The workers were too relaxed, which is somewhat typical in public enterprises, and lacked the will to recover. They were like flowers that had been taken out of a greenhouse and suddenly exposed to a heavy rainstorm.

I thought the workers needed to become accustomed to such rainstorms. Therefore, I tried hard to change the corporate culture. The workforce was reduced by about 30%, and this created tensions and a kind of competitive structure among workers. Every worker completed a south-to-north hike through the Korean peninsula, from

Mt. Jiri to Mt. Seorak, over a six year period beginning in 2004. Furthermore, in 2010 workers began a north-to-south bound hike from Mt. Seorak. This is not a light-hearted stroll. Workers walked for three days and two nights with a 10-kg backpack on their back. In addition, officers were not excluded. At the beginning, workers complained, saying, "Why do we have hardship on purpose?" However, they slowly changed. Now they are unafraid of challenges and in fact enjoy them.

In April last year, 14 workers and executives including myself went to the Mt. Everest area of the Himalayas. We all succeeded in climbing Kala Patthar, which is 5,550 meters above sea level, overcoming altitude sickness and our own physical limitations in the process. Accomplishing difficult goals makes people change, which in turn helps to change the culture. Some ask me why mountains. Yet mountains are simply a tool for new corporate culture. Strong camaraderie and physical strength are an extra bonus.

Please introduce your strategy for survival in the global market and vision for the future of Korean Re.

Korean Re aims to be the world's top-tier reinsurer. When we established "Vision 2020" in 2007, we set the goal of becoming the world's number five by 2020. To accomplish this goal, we





have to compete with global leading companies.

Korean Re has been active in exploring overseas markets since 1998, and now more than 20% of sales come from overseas. It was not easy. When we first knocked on the door of foreign markets we were shunned away. However, we didn't give up and tapped into the Asian market, which had a relatively small amount of insurance underwriting, and proceeded with economic development at a fast pace. One of our targets was the shipbuilding market, an area that Korea dominates.

Credit rating is important for insurance underwriting. Korean Re received a BBB- from S&P in 2002. Our executives and I flew to S&P's headquarters in New York and convinced about Korean Re's capacity. We returned home with A- rating. Following this our performance in overseas markets gained momentum. We were able to make such a fresh start simply because we didn't give up. Since then, Korean Re has maintained S&P's A- rating for seven consecutive years.

Korean Re aims to boost the proportion of overseas business to 50% of gross premiums by 2020. We will constantly explore new markets such as China, East Europe and Latin America, and expand base stations for overseas businesses by transforming liaison offices into branch offices.

Korean Re employs overseas job training programs in order to cultivate employee expertise. At any one time, approximately 5% of employees are participating in overseas training, such as Master's degree programs, or job training in foreign reinsurers or our overseas offices (London, Singapore and Hong Kong).

As the CEO of Korean Re, you have probably experienced many joys and sorrows with workers. What was the hardest thing and what are you most proud of?

I joined Korean Re when the company was about to go bankrupt after the nation's 1997 financial crisis. I had to let a certain number of workers go from the company. It was the hardest thing for me, but it was also only choice at the crossroads of the company's life and death.

I am sometimes nicknamed "Spiteful Jong-won" which I take both as a misunderstanding a compliment.

I myself don't think I am such a strong person. When I chat with employees, I enjoy listening to gossip about popular issues, just like employees do. However, when it comes to working in the fields, I tend to be severe and merciless. People and organizations become more capable and stronger when they go to the limi.

About something proud of... Well, maybe I contributed to changing a weak and tender organization into a tough one that can endure harsh environments. Even as the world's number 10, we are still dreaming of a higher position. I am proud of this.

What advice would you give employees based on your managerial philosophy? And, what has led to success in your professional and personal life?

I always emphasize "wild nature" when I talk to employees. What has made who I am is nothing but "wild nature," I believe. I lived as a government official in the financial sector for 25 years. I could have chosen to remain in the Ministry of Finance, but I actually chose a company on the ragged edge even though I knew I would have to buffet big waves. That was because I strongly felt like stepping forth towards a new challenge. Before I quit the Ministry of Finance, I asked myself if I wanted to remain where I was. The answer was no. I was thirsty for challenges then.

When I say "wild nature," it doesn't mean "being uncivilized, uncultured or rough". It is more like being self-confident and rigidly adhering to a goal even in an extreme situation. And just like you need quick response to the environment in order to survive in the wilderness, we need expertise and ability to 66 Korean Re has been active in exploring overseas markets since 1998, and now more than 20% of sales come from overseas. It was not easy. When we first knocked on the door of foreign markets we were shunned away 9 9

do our jobs.

Korean Re takes a job applicant's wild nature into consideration when hiring. Educational background is important, but more important than knowledge is his or her personality. To look into what is behind the appearance, we have created a special hiring process. We require job applicants to submit hand-written resumes and to participate in outdoor test activities such as an allday-long football game or mountain climbing. This allows interviewers to a closer look at the interviewees. To join Korean Re, you have to show your wild nature.

Please tell us about your resolution and management strategy for 2013.

Korean Re becomes 50 years old this year. While experiencing ups and downs over the last 50 years, the company has learned how to cope with crises. Korean Re has become the world's 10th largest reinsurer, sharpened its competitive edge in technology and knowhow, and created a strong corporate culture.

Now is the time for Korea Re to design the upcoming 50 years based on its past 50 years. Korean Re should jump into the rough, deep ocean once again, and keep moving. The company will lay a cornerstone for a global top 5 position this year. It will employ various kinds of security functions so as not to be swung by unexpected risks, and concentrate on developing a growth engine for the upcoming half century. @







BUSAN PORT AUTHORITY

Aiming to Become the Best of Its Kind Worldwide

Busan Port Authority has recorded positive operating profits for nine consecutive years

Nommemorating its 9th anniversary, the Busan Port Authority (BPA) (CEO LIM Ki-tack) has pledged to become one of the world's finest port companies through aggressive marketing activities.

The BPA was established in January 2004 as the first port authority in Korea. Last year, it handled 17.03 million TEUs of container traffic, the highest in its history, and in spite of the severe economic recession at home and abroad joined the ranks of the global top five container ports.

Since its inception, the BPA has made continuous efforts to contribute to the development of Korea's port industry by building and renovating port and hinterland facilities and ship article distribution centers, and attracting cruise ships, etc.

Container Volume Target for 2013 Set at 18 Million TEU

The BPA's container volume target for this year is 18 million TEUs, a 5.6% rise from last year. To meet this ambitious goal, the company will launch customized marketing and business attraction activities that allow for shippers' specific needs and FTA terms. At the same time, the authority is running a special task force to better handle transshipment cargoes, which account for 47% of the total harbor volume, while improving the efficiency of transport between the North Port and New Port, as well as providing attractive incentives and inviting more global companies to the port premises.

Furthermore, the BPA is striving to boost competitiveness by augmenting



infrastructure. It added four berths to the New Port last year so as to increase the total to 22 and become the logistics hub of Northeast Asia. Opened back in 2006, the New Port handled 237K TEU of cargo in its first year, yet took charge of 55% of overall traffic of Busan Port last year. In the meantime, the New Port distribution facility, the so-called Distripark, is continuing to create new jobs. Thirty global logistics companies are currently doing business in Northern Distripark which created about 1,300 jobs and 611K TEU of container cargos

In addition, the BPA is planning to increase the competitiveness of Busan Port by giving new roles to the North Port and seeking ways for mutual development between the North Port and New Port. The North Port Redevelopment Project, which is considered one of the top ten Korean New Deal Projects, aims to renovate the four old piers at the port and the international passenger terminal with a combined area of 1.52 million square meters into a hub of international marine tourism and waterfront areas. A total of 8.5 trillion won is scheduled.

Site development is 80% completed now, with the GS E&C Consortium leading the facility development phase. 23 sessions of round table meetings were held last year, attended by civic groups and experts, and which were designed to ensure the project can better serve public

Enhancement of Competitiveness through Global Networking

The BPA is also aiming to develop the world's finest marina facilities in conjunction with SUTL Corporation, which operates a high-class marina center in Singapore. It has also partnered with the Hyundai E&C Consortium to build the International Passenger Terminal by 2014. The groundbreaking ceremony for which took place in October 2012.

The authority is also stepping up marketing activities to attract more cargos and investment into the port. To this end, it plans to establish additional offices in Singapore and London, strengthening its global networks.

The BPA has operated in the black for nine consecutive years since its establishment, recording profits of 76.9 billion won in 2010, 69.3 billion won in 2011 and 63.1 billion won (tentative) last year, and maintained the highest credit rating of AAA. "We'll further ensure internal stability while celebrating our ninth anniversary and enhance our capabilities down the road so as to remain one of the best port authorities in the world," said BPA CEO LIM Ki-tack. ®











KOREA EXPRESSWAY CORPORATION

Listening Carefully to Voice of Customers

As the first CCM Certificate winner among Korean state-run companies, the Korea Expressway Corporation is pursuing "Customer Surprise" beyond customer satisfaction

The Korea Expressway Corporation (chairman and CEO Jang Sukhyo) obtained the Consumer Centered Management (CCM) Certification in July last year from the Fair Trade Commission, the first time a stateowned enterprise (SOE) in Korea has done so. The FTC assesses a company's business activities from the perspective of customers and grants the certificate to those with a high score.

The corporation introduced the concept of customer satisfaction in 1993 and established its own customer service standards six years later, a first time among Korean SOEs. In 2011, it initiated a consumer-centered management system, led by the strong initiative of the CEO.

Since the declaration of customer-oriented management back in October 2011, the Korea Expressway Corporation has exerted great efforts for higher customer satisfaction. "Let us turn ourselves into a company moving the hearts of people," said the chairman in his inauguration speech in June 2011, putting forward the virtue as one of his three management philosophies.

To that end, the company has reshaped its customer management organization and introduced new infrastructure, while also stressing the importance of business policy through continuous education and media exposure. At the same time, it set up the Voice of the Customer (VOC) portal and a deliberation committee to cover customer-related issues. It has designated CS2, or Convenience, Speed and Safe, as its service identity under the



slogan 'Leading Customer Satisfaction Provider in Korea' in coming up with corporate-wide customer management strategies and plans.

For example, it is operating various online and offline customer contact channels, such as a call center, official website, smartphone application, social networking site, information center, and so on, to provide timely information regarding traffic. Its call center, which provides expressway traffic information, is available around the clock. All of the data at the call center is categorized, summarized and registered systematically to enhance its service and monitoring quality. The office has won the Call Center Service KS Standard Certificate from the Korean Agency for Technology and Standards of the Ministry of Knowledge Economy, and been selected as one of the finest in the industry by the Korea Management Association Consultants.

The Korea Expressway Corporation does not limit the scope of its customers to those who use expressways and service stations, but includes various parties such as local communities and government authorities. The idea is to realize customer value in more various ways.

At the same time, the corporation is turning its attention towards overseas markets to improve financial stability and reduce debts, which are expected to increase due to the government's policy measures to revive domestic consumption by means of utility rate cuts and benefits for disabled people and those who own compact cars.

The company is focusing on the Southeast Asian and Latin American markets in particular. In Peru, for example, it is aiming for a comprehensive contract associated with not only expressway construction but also repair and maintenance.

Furthermore, an increasing number of foreign companies are benchmarking the rest area operation know-how of the corporation. It has already built 10 service areas along the 400km-long expressway in Jilin Province, China, and winning the highest rating during a government evaluation.



JANUARY 2013 | BUSINESSKOREA





LG DISPLAY

Its Reputation to Be Reaffirmed at **CES 2013**

LG Display will participate in the largest consumer-electronics shows in the world with a magnificent lineup of its highest resolution products



G Display will showcase its latest innovations in display technology resolution and design at CES 2013. The company, known as the world's largest LCD panel maker, says that it is the first showcase to unveil the world's highest resolution 4K2K monitor together with its line-up of Ultra High Definition TV displays. Specifically, LG Display will reveal three UHD panels - a 55-inch, a 65-inch, and an 84-inch Ultra High Definition panel.

On the other hand, LG Display's 4K2K monitor sports a 30-inch display with a jaw-dropping 4096×2160 resolution. This could easily be the world's highest resolution monitor. LG Display says that the monitor can be used in a wide variety of fields, such as in medicine, design, and more. LG Display will further enhance its OLED technology and design.

transparent display, a 47-inch high

LG Display also reveals a 47-inch transparent display, a 47-inch high brightness display, and a video wall composed of nine 55-inch FPR 3D panels. Resolution and design are at the top of LG Display's list of priorities

brightness display, and a video wall composed of nine 55-inch FPR 3D panels. Resolution and design are at the top of LG Display's list of priorities. Dr. Sang-Beom Han, the president and CEO of LG Display, said that the company is "relentlessly pursuing" two key drivers that represent the future of the display industry - resolution and design. "The products to be exhibited at CES 2013 will reaffirm both our reputation as the field's leading innovator,

as well as ability to deliver market winning solutions to customers around the world," CEO Han added.

LG also shows off a 5.5-inch, 1080p smartphone screen, a 7-inch, 1920 × 1200 pixel tablet screen and a 12.9inch, 2560×1700 pixel screen for laptops. The last one is comparable to Apple's retina screen on the 13-inch MacBook Pro, which has a 2560 x 1600 pixel resolution.

Not content with merely stuffing more pixels into screens, LG has continued to narrow the bezels of its monitor screens. At CES, it will show a 23.8-inch monitor panel with an "ultra narrow" bezel, a 13.3-inch laptop panel with a "narrower than 2 millimeter" bezel and a 4.7-inch mobile display with a 1 millimeter bezel.

LG's OLED screens are getting lighter. The company plans to show an "impossibly thin" (meaning 4 millimeter) OLED display that weighs only 3.5 kilograms.

CES is the acronym for the (International) Consumer Electronics Show, one of the largest consumer-electronics shows in the world. Although it is held in Las Vegas these days, the first CES was held in June 1967 in New York City and Bob Gavin, the CEO of Motorola, was the opening keynote speaker for the first event. Subsequently, CES had been held twice a year, the summer event in New York and the winter one in Las Vegas, until 1998 when CES became a once-a-year show only in Las Vegas. CES has been positioned as the introduction place for key products and technologies. @

LG Display also reveals a 47-inch





SSANGYONG E&C

Creating Legend of Advanced Technologies

The giant Korean constructor has received eight awards in four nations, breaking the world record

As befits its strong reputation as the master of overseas construction, Ssangyong Engineering and Construction Co (Ssangyong E&C) received the largest number of overseas awards in world construction history last year. And building on this, it has made a confident start to this year.

Ssangyong E&C received eight awards in four nations last year, breaking the world record; the Platinum & Gold Prize at the BCA Construction Productivity Awards 2012 for the Marina Bay Sands Hotel in Singapore, the Bronze Prize at the International Design Excellence (IDEA) Awards 2012 in the USA, and various prizes at the ROSPA Awards 2012 in the UK, the Reddot Design Awards 2012 in Germany, and others.

Since founded in 1977, Ssangyong E&C (CEO Kim Suk-joon) has completed a total of 131 construction project orders (worth US\$ 8.8 billion) in the US, Japan, Equatorial Guinea and 17 other countries in Asia and the Middle East. Since ranking second in the hotel sector by US-based global construction magazine ENR in 1998, Ssangyong E&C has remained at the top. In particular, it holds world records in the construction of luxury hotels (13,000 guest rooms) and hospitals (8,000 beds).

Number One in Global Luxury Buildings

In 2010, Ssangyong E&C earned international attention and acclaim for its successful completion of the Mariana Bay Sands Hotel in Singapore, often called the "most challenging engi-

neering project in 21st century architecture." The hotel project proceeded at a cost of approximately 1 trillion won over 27 months. Ssangyong E&C set a new record of 12 million accident-free hours with this project.

Since its debut in 1980 with the 73-storied Swiss hotel "The Stamford" in Singapore, recorded as the world's tallest hotel by the Guinness Book of World Records at that time, Ssangyong E&C has successfully completed numerous remarkable hotel projects –Raffles City and many other hotels affiliated to the Hyatt and the Intercontinental.

Ssangyong E&C has conducted a total of seven development projects in the US. Among them, the Anaheim Marriott Hotel project was recorded as the first overseas investment and development project in Korea, and for which the company was involved in the entire process, from planning and design to construction. In Dubai, still an unfamiliar city to most Koreans in the 1990s, Ssangyong E&C successfully constructed the Jumeirah Emirates Towers Hotel and Grand Hyatt Dubai, which paved the way for many Korean constructors to make inroads into United Arab Emirates.

Ssangyong E&C's overseas plant construction began with rain water drainage facilities in Unayzah, Saudi Arabia in the early 1980s. Since then, it has constructed various industrial facilities, such as the Kharg crude oil tanks and Karanji gas injection facilities in Iran, the Suralaya thermal power station in Indonesia, and the Hadeed iron and steel mill in Saudi Arabia. In particular, the Jubail desalination plant in Saudi



Arabia, which Ssangyong E&C won the bid for in March 2008, is known as the world's largest-scale desalination facility. It is equipped with twenty-seven 30,000-ton class evaporators capable of producing around 800,000 tons of drinking water per day, enough to supply 2.5 million people.

Big Overseas Strides Continue with Exploration of New Markets Accelerated

Ssangyong E&C succeeded in winning an approximate 100 billion won reconstruction bid for Berths 15 to 17A in Karachi Port, Pakistan in January this year. Furthermore, for the period of September to October last year, the company won engineering and construction orders totaling approximately 600 billion won, including the Mongomo Residence in Equatorial Guinea, the Kurd water supply and purification facilities in Iraq, and the Yale-NUS College in Singapore.

Ssangyong E&C plans to place priority on luxury buildings and highly challenging civil engineering projects, areas where the company has strong competitiveness, in resource-rich or developing countries that desperately need social infrastructure. In this regard, Ssangyong E&C is seeking to enhance its planning ability for free construction services and project offers, as well as explore new markets such as Russia, Saudi Arabia, Qatar, Kuwait, Iraq and Oman, along with expansion of its conventional markets.









MEDICAL TOURISM POLICY

Making Sure World-class Medical Services for Foreign Patients

The Ministry of Health and Welfare has been making efforts to promote the medical tourism industry to be a nation's next generation growth engine with world-class technologies and highly skilled and professional human resources equipped



The Ministry of Health and Welfare has involved in establishing and revising related laws and regulations to improve the medical environment for foreign patients while easing the regulations on the medical tour market and support the marketing efforts. Jung Ho-won, the Director of Health Services Bureau at the ministry, is leading such efforts from the government.

In particular, he tries hard to build foreigner-friendly infrastructures such as establishment of medical arbitration agency, minimization of medical visa process, diversified foreign language services, etc., to meet the needs of medical tourists. Here are some excerpts from the interview with him.

Please tell us about the roles and job fields that the Ministry of Health and Welfare actually takes on for the promotion of medical tourism.

One of the Ministry's important roles is above all to run the "Registration System for Attraction of Foreign Patients" as the first responsible government office of the medical tourism business. The Ministry is involved in establishing and revising related laws and regulations to improve the business environment of the registered medical institutions and marketing agencies. Also, the Ministry tries hard to build foreigner-friendly infrastructures; for example, it provides biannual education of the nationwide registered institutions to prevent foreign patients' medical disputes.

The Ministry's another important role is to explore new markets and diversify marketing channels to attract medical tourists so as to broaden the arena where the registered medical institutions and marketing agencies can work. In particular, the Ministry has created cooperative alliances for healthcare with emerging resource-rich countries. These countries have affluent natural resources but poor

medical supply systems, so their governments are active in sending patients with serious diseases abroad and importing advanced medical systems. Accordingly, the strengthened alliances with them have resulted in the increased number of medical tourists (yearly average growth rates: 118.9% from Central Asia & 72.2% from the Middle East).

What about the types of foreign patients, their satisfaction on treatment, and the performance in attracting foreign patients?

We had about 60,000 medical tourists in 2009 and 80,000 in 2010. But the number reached 120,000 in 2011, more than doubled in three years. And the medical revenue from these people was more than tripled to 180.9 billion won in 2011 from 54.7 billion won in 2009. I don't expect to have difficulty in achieving the goal of 150,000 medical tourists this year.

Among all foreign patients, outpatients accounted for about 78%, medical check-up patients 12%, and hospitalized patients 10%. About 12% visited Korea with serious diseases, and their medical expenses contributed to 44.3% of the total medical revenue from foreign patients. So, it is important to attract these high value added visitors.

And their satisfaction on medical treatment was very high. We got 3.59







points out of 4.0 in the survey of foreign patients from the US, China, Japan and Russia last year. The main reason they visited Korea was because of the excellence and good reputation of Korean medical institutions and medical professionals (35.5%). They expressed the highest satisfaction with the services provided by hospital personnel such as doctors, nurses and international medical coordinators. They pointed out kind employees, highly professional medical staff, clean and convenient hospitals, upto-date medical equipment, and prompt results of medical examinations, as the virtues of Korean medical services.

It is notable that Japanese patients picked "Integrated services of tourism, shopping and medical treatment" and the US patients "Foreigner-friendly medical environment" as their main reason to visit Korea.

What is your opinion about the nation's competitiveness in infrastructures of medical tourism? And what do you think of challenges to overcome?

The world-class medical technology is our biggest power to attract medical tourists. In the cases of stomach cancer, liver cancer, cervical cancer and thyroid cancer, Korea showed a five-year longer relative survival rate than the US and the EU countries in 2011. In the case of apoplexy, Korea showed the lowest death rate among the OECD countries; 2.5 patients of every 100 died within 30 days after hospitalized in Korea while 6.7 patients died in the US and the OECD average was 5.2. The success rate of the liver transplants conducted by the nation's largest-scale liver transplanting hospital was a staggering 96% in 2010, the world's number one (the advanced nations' average: 85%).

On top of the highly skilled and professional human resources, Korea has lots of up-to-date medical equipment. Korea is the only Asian nation that has proton therapy center and also has DaVinci Robots, Cyber Knifes, Gamma Knifes, Trilogy, and others. And the U-Health remote examination and treatment system based on the world's top-tier IT technologies hints the bright future of the medical tourism. More importantly, our global competitiveness is once again assured by the fact that we provide these kinds of high-class medical services at far lower prices than the US or Japan.

Despite these virtues, we still have work to do to fully satisfy the medicalpurpose foreign visitors as you mentioned. Among the registered medical institutions, there are quite a lot which lack foreign-language signs and explanations, restaurant menus for foreigners, dedicated medical staff and coordinators, and interpreters. In addition, accommodations for patients and their families as well as related service items like resorts, tourism and shopping should be expanded.

There are some opinions that the medical tourism business can cause some side effects, for example, to discriminate against Korean patients, polarize medical services, or undermine the nature of public services. What do you think about that?

The issue that the increase in the number of foreign patients would limit the natives' access to medical services had been raised even before the medical tourism business was started in earnest according to the revised Medical Act.

To prevent this from happening, we limit the number of foreign patients' beds in upper-class general hospitals to no more than 5% of the permitted for all (2-5 of Provision 27 in the Medical Act, 5 of Provision 19 in the Enforcement Regulations of the Act). Actually the foreigners' bed occupancy rates in upper-class general hospitals were just 0.15% in 2009, 0.19% in 2010 and 0.44% in 2011, respectively. And, as of 2011, the total number of foreign patients was 122,297, which is about 0.27% of the Korean patients (0.09% in case of hospitalized patients). So, foreigners' influence on the natives' access to medical services is trivial.

Rather, I believe the increasing number of medical tourists will help solve the The Ministry's another important role is to explore new markets and diversify marketing channels to attract medical tourists so as to broaden the arena where the registered medical institutions and marketing agencies can work 99

oversupply of domestic medical personnel, beds and equipment, and improve neighborhood hospitals' depressed business environment. Naturally, this will lead to higher-quality medical services and strengthened medical security to Korean patients, too.

What kinds of improvements are needed to expand the medical tour-

To enhance foreign patients' convenience and security, we have made many improvements. Now foreign patients are permitted to fill their prescription in hospital and documents required for medical visa have been minimized. Medical tourists also can take our national air carriers at a discounted rate and our international airports have transportation systems for foreign patients within their perimeters. Besides, we have established the Korea Medical Dispute Meditation and Arbitration Agency as well as the system to assess the medical institutions' acceptance of foreign patients. And we have enforced the medical institutions to append their foreign-language names.

Also, to ease the regulations in the medical tour market and support the marketing efforts, we allow the registered medical tour agencies to partially work as general travel agents, and the general travel agencies to register as medical tour agencies only if they are insured for damages to clients. In addition, we have adopted the national certification scheme for international medical tourism coordinators.







KOREA HEALTH INDUSTRY DEVELOPMENT INSTITUTE

Pursuing Dream of Medical Korea

The state-run health industry promotion institute has been exerting efforts to attract one million inbound medical tourists annually

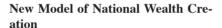
Countries are engaged in fierce competition as cross-border medical services emerge as a promising industry. According to a recent report by McKinsey & Company, the international medical service market grew from US\$60 billion to US\$100 billion between 2008 and 2012 at an average rate of approximately 12%. Under such circumstances, Korea's medical industry is increasing its importance as a future growth driver and national income generator.

The Korea Health Industry Development Institute (president Ko Kyung-hwa) is striving for international marketing, policy making and overseas market penetration under the slogan 'Medical Korea' in order to attract more patients and improve the global awareness of the industry.

Korea is currently providing topnotch medical services, with the competitiveness of its information technologybased medical facilities and equipment recognized by international organizations such as the OECD. Reasonably-priced medical bills and advanced technologies have drawn global attention, along with the high success rate of delicate operations for cancer and cerebrovascular diseases, etc.

This superiority lies in three fields; medical technology, price, and service infrastructure. Highly-skilled medical professionals are providing top-quality medical services using cutting-edge equipment. The number of inbound medical tourists is rising quickly due to such beneficial factors.

The number of such patients is projected to surpass the 200,000 mark this year and 300,000 and 400,000 in 2015 and 2018, respectively. When the number reaches 400,000, annual medical tourism revenue is estimated to exceed 1.5 trillion won, and create 16,691 new jobs.



Last year, the KHIDI signed patient care contracts with Middle Eastern countries such as the United Arab Emirates and Saudi Arabia, including an MOU with the UAE military and agreement on the consigned management of the Dubai Rehabilitation Center



with the Bobath Memorial Hospital.

The KHIDI is also planning to build 86 new hospitals in and impart 162 medical techn ologies to Saudi Arabia, a move considered an important foothold for global market expansion, at an investment of US\$10 billion. The two countries launched a joint executive program last year for bilateral cooperation and personnel exchange in the healthcare field. Furthermore, the company aims to provide advanced medical services to more people in third world areas such as Russia, Kazakhstan, Uzbekistan and Mongolia.

The institute is going to continue expanding international cooperation through networking efforts and help Korean medical and healthcare service providers find their way into overseas markets. Furthermore, it is planning to create a virtuous cycle of patient attraction and global market penetration so that Korea can take a leading role in the sector in the future. In this context, the organization aims to establish stable, successful global collaboration systems, promote the Medical Korea brand, and launch various marketing activities to secure its international standing as a medical powerhouse.



BUSINESSKOREA | JANUARY 2013





INHA UNIVERSITY HOSPITAL

Going Beyond Incheon

Inha University Hospital is turning itself into a medical institution specializing in the treatment of cardiocerebrovascular diseases



Tnha University Hospital was recently designated as the regional medical organization for Incheon City and recognized by the Health Insurance Review & Assessment Service (HIRAS) as a leading hospital in the treatment of acute stroke and myocardial infarction.

With its selection as the regional hub, the institution will be given government subsidies worth six billion won over the next five years for the construction and operation of a cardiocerebrovascular center. At the same time, the HIRAS is planning to reward Inha University Hospital for its high evaluation scores obtained in its annual nationwide assessment of 189 and 113 medical institutions that provide acute stroke and myocardial infarction treatment, respectively.

Inha University Hospital, building on such accomplishments, is suggesting a new paradigm for the care of cardiocerebrovascular patients and making greater contributions to the local community.

IUH Develops into Hub of International Medical Tourism

The hospital is striving to attract inbound medical tourists from around the world as a participant of the Health & Welfare Ministry's initiative for the purpose as well as a close partner of the Incheon Medical Tourism Foundation and major regional medical service providers.

The project is to facilitate the growth of the medical tourism sector



and address the concentration of foreign medical tourists in Seoul by providing marketing and infrastructure support. Inha University Hospital is slated to receive support from the central government to bring more foreign patients to Incheon.

In this context, the hospital invited Maisuk Irina, a female patient living in Vladivostok, Russia, in conjunction with the Incheon Medical Tourism Foundation, a Russian agency and the local media back in mid-December last year and provided her with free treatment. Before this, she had been unable to receive medical attention for a dangerous heart condition because of expensive medical expenses and poorly-equipped local institutions.

The project has contributed greatly to its marketing activities and networking with local medical tourism agents. The hospital is going to further promote its superiority in the treatment of cardio-cerebrovascular disease by making use of such successful project results.

Center of Northeast Asia for Cerebral and Cardiovascular Patients

"During our preparations for the designation, we significantly improved the efficiency of patient management and local awareness of cardio-cerebrovascular diseases and their symptoms, while also reducing the mortality of diabetes and cerebral vascular illnesses and providing better care for outpatients and chronic patients," said the hospital's director, adding, "We'll continue refining our 24-hour standby systems and the preventive management and early diagnosis of related diseases as a humble contributor to the local community." B











Sungmin Hospital (director M.D. Ahn Byung-moon) is the only hospital specializing in microsurgical finger replantation in Incheon Metropolitan City, which has a population of 2.83 million.

Founded in March 1993 and celebrating its 20th anniversary this year, Sungmin Hospital is located in Seo-gu, Incheon City. It has fulfilled its role as the regional medical center for health-care promotion, providing high-quality medical services in a variety of fields such as orthopedics.

It has offered specialized medical services since its inception in order to actively deal with various industrial accidents and disasters. It was designated a regional emergency medical center in 2004 and has redoubled efforts to further refine its 24-hour diagnosis and surgery systems.

World-class Micro Replantation Center Certified by Government

The Micro Replantation Center (medical director Kwon Ki-doo) of Sungmin Hospital has strengthened its medical personnel and systems since 2000 for the better, timelier emergency treatment of amputation patients. It has employed advanced techniques and time-tested therapies so that patients can be fully satisfied with treatment results and continue their hope for life.

The replantation center has performed a large number of surgical operations involving bone, nerve, tendon and blood vessel regeneration, which require extremely high skills, as well as **SUNGMIN HOSPITAL**

Finger Replantation Powerhouse in Korea

The regional medical center in Incheon City continues the hope of humanity

achieving remarkable results in the field of clinical research. The center obtained the ISO 9001 certification in 2005, the first time a medical institution in Korea has done so, and won the Excellent Paper Award in the clinical research segment from the Korean Society for Surgery of the Hand. In addition, it has contributed to the development of the medical sector both at home and overseas by actively participating in the Korean Orthopaedic Association, the Korean Society for Microsurgery, and so forth. Back in 2009, it was invited by the American Society for Reconstructive Microsurgery to present a paper and share its research results at its annual meeting.

Building on such accomplishments, Sungmin Hospital was selected in 2007 as one of the two pilot institutions for microsurgical finger replantation by the Ministry of Health & Welfare. Three years later, it was designated a leading medical institution, specializing in replantation by the same ministry, winning the ministerial award, and officially becoming a regional microsurgical finger replantation center in October 2011. Furthermore, the Ministry of Knowledge Economy selected it as Korea's first model digital hospital in 2011.

Contribution to Globalization of Advanced Medical Technology of Korea

Not content with such success, Sungmin Hospital is striving to become one of the most advanced medical institutions in the world. To realize its vision of SM2020 under the slogan 'Contribution to Health and Happiness of Humanity through Healing', the hospital is exerting great efforts to become the best of its kind in Korea and increase its international standing.

It was chosen as one of the three model hospitals of the Knowledge Economy Ministry's Digital Hospital Export Project in 2009. The following year, it took part in the World Best Software Project, playing a leading role in the digitalization of small-scale hospitals.

At the same time, it is making the most of its geographical advantage; its proximity to Seoul/Incheon International Airport and Incheon Port, to pursue its plans for differentiated, specialized medical services for foreign patients in the fields of joint treatment, spinal treatment, etc.

Director Ahn Byung-moon is currently serving as head of the International Committee of the Korean Hospital Association and the first chairman of the Digital Hospital Export Forum, dedicating himself to the globalization of the Korean medical industry. He also joined the Korean delegation to Saudi Arabia in February last year, promoting medical cooperation between the two countries.





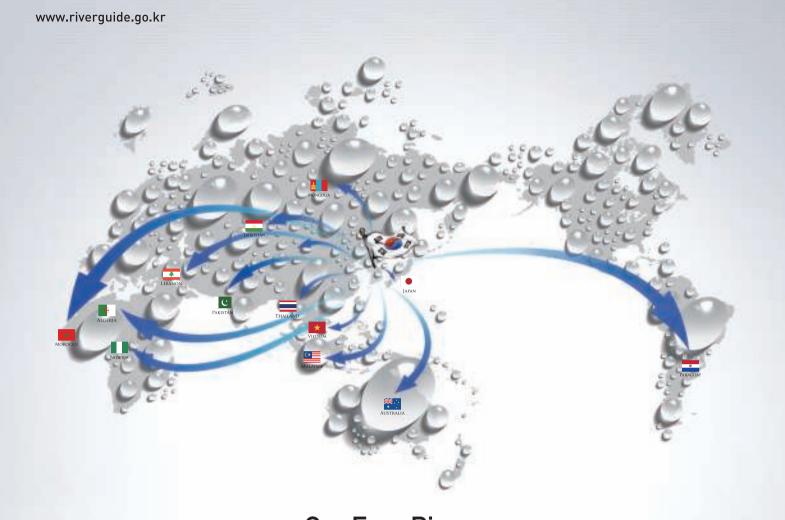












Our Four Rivers Spread to the World

The world is suffering from climate change and global warming.
The suffering and damage caused by water is extremely severe.
The Four River Restoration Project is prepared for climate change.
It is now the paragon of comprehensive water management which will resolve the water problems around the world.



The Nigerian ambassador



The Moroccan envoys



The Vietnamese vice minister of the ministry of finance



The prime minister of Thailand



Concluding MOU with Paraguay





4 Rivers Green Korea











International Relations





VIET NAM

20 Years of Strong, Fruitful Cooperation

In just two decades, the Viet Nam -Korea relationship has rapidly deepened in fields such as politics, trade, investment, culture, education and people-to-people exchange, demonstrated by the trade performance which shows a 26-fold increase from US\$500 million in 1992 to around US\$21 billion last year



Last year was designated "Korea-Viet Nam Friendship Year" as the two countries celebrated the 20th anniversary of the establishment of diplomatic relations.

Viet Nam and Korea are ideal partners in many ways. Situated on peninsulas, the two countries share a lot of things in common, such as historical and cultural values. These traditional values and new challenges have closely bound our two nations together.

H.E. Tran Trong Toan, Ambassador of Viet Nam to Korea shares his valuable

insight into bilateral relations between the two countries, particularly from an economic perspective.

It has been 20 years since Korea-Viet Nam diplomatic relations were established. From an economic perspective, how do you view overall bilateral relations between Vietnam and South Korea so far?

Over past years, the Republic of Korea has become one of the leading economic partners of Viet Nam. So far, as of 20 October 2012, among 98

countries investing in Viet Nam, Korea is the 2nd largest foreign investor with US\$24.5 billion of registered capital, and first in terms of number of projects with 3,134 units in Viet Nam.

Meanwhile, Viet Nam is the 3rd largest foreign market of Korean investment following China and the US. Korea is the 2nd largest ODA donor of Viet Nam and Viet Nam is the largest receiver of Korean ODA with US\$1.226 billion for the period 1995-2010, and US\$411.8 million in 2011. Korea has committed to grant US\$1.2 billion during the 2012-2015 period.

Korea is the 4th largest trading partner of Viet Nam (Korea is Viet Nam's 4th largest export market and 2nd largest import source) while Vietnam is Korea's 9th largest export market and 21st largest import source. Bilateral trade grew substantially from just US\$500 million in 1992 to US\$10 billion in 2008, and upto US\$18.7 billion in 2011. In 2012, bilateral trade turnover increased to around US\$21 billion, 3 years before the target set by the two governments.

Korea is now also the 2nd largest source of tourists visiting Viet Nam, with the number reaching 567,000 in 2012. Korea is Viet Nam's 3rd largest destination for Vietnamese workers under the Employment Permit System (EPS), thus contributing to Korea's economic growth. Such close economic ties have



igoplus

helped further strenthen the overall relationship between Viet Nam and Korea as strategic cooperation partners.

Nevertheless, there is still vast potential to further enhance and expand Vietnam-Korea economic relations so as to efficiently serve the interests of both countries and for better cooperation and prosperity in Asia and the world at large.

Are there any pending issues to solve for better economic and cultural cooperation between the two countries?

Economic and cultural relations between Viet Nam and Korea have been developing very dynamically and effectively over the past 20 years. There are no economic or cultural disputes nor contentious issues between the two

In order to further accelerate and expand bilateral trade, Viet Nam and Korea initiated negotiations on a bilateral Free Trade Agreement (FTA) on 6 August 2012 during a visit to Viet Nam by Korea's Minister for Trade Bark Tae-ho. The first round of FTA negotiations were conducted in September 2012 during a visit to Korea by Viet Nam's Minister of Industry and Trade Vu Huy Hoang. The two side are committed to expediting negotiations so as to complete a Vietnam-Korea FTA and contribute to expanding economic relations.

We believe that an early conclusion of the Viet Nam-Korea FTA would effectively facilitate the expansion of bilateral trade and achieve the target of US\$30 billion after 2015 set by the two governments. At the same time, the FTA would also help bride the lingering large trade deficit from the Vietnamese side with Korea, which counts for 40% of Viet Nam's global trade deficit.

Viet Nam and Korea have also been closely working with each other on measures to renew the MOU on Korea accepting new Vietnamese workers to work in Korea under the EPS system (the MOU has been temporarily stopped since 28 August 2012 and due to this no new workers from Viet Nam have been allowed into Korea).

To strengthen bilateral political, cul-

tural and economic cooperation is the most important factor to consolidate and further develop the Viet Nam-Korea strategic cooperation partnership.

Since President Lee Myung Bak founded "Strategicv Partnership" between the two countries in 2009 Oct., what has been achieved so far?

Since October 2009, when Viet Nam and Korea agreed to upgrade their bilateral relationship to that of a strategic cooperation partnership, friendship and cooperation between the two countries has developed more dynamically and effectively. To become a strategic cooperation partner is not a slogan or mere desire, but it has indeed become a living reality in the relationship between Viet Nam and Korea. During the state visit of Korean President Lee Myung Bak to Viet Nam in October 2009, Korea became one of the first five strategic cooperation partners of Viet Nam along with important countries such as Russia, China, Japan and India. Korea has enjoyed a high position in Viet Nam's foreign policy.

In regards to political relations, Korea and Viet Nam have built deep mutual understanding and trust among leaders at the highest level. Annual Vice-Mininisterial level strategic dialogues on foreign affairs, security and national defence have been conducted.

In terms of economic cooperation, Korea has become one of the leading economic partners of Vietnam, as mentioned above, which has contributed significantly to the process of industrialization and modernization of Viet Nam.

In cultural and tourism cooperation, Viet Nam and Korea have successfully promoted cultural exchange through expanding Hallyu in Viet Nam and Viet Nam organizing the Vietnamese Cuture and Tourism Week in Korea on an annual basis. The two sides signed an MOU regarding tourism exchange in 2010 that helped to increase the number of tourists travelling from Korea to Viet Nam (567,000 people in 2012) and from Viet Nam to Korea (over 200,000 tourists in 2012).

66 We believe that an early conclusion of the Viet Nam-Korea FTA would effectively facilitate the expansion of bilateral trade and achieve the target of US\$30 billion after 2015 set by the two governments

In regards to labour cooperation and people-to-people interaction, there are around 65,000 Vietnamese workers working in Korea. The Vietnamese community of 123,000 people in Korea and the Korean community of 130,000 people in Viet Nam are actively contributing to strenthening friendship and all-round cooperation between the two countries. So far, 35 localities (cities, provinces, districts) in Viet Nam and Korea have established sister relations with each other. Their friendly,cooperative relations have been increasingly dynamic and fruitful.

Bilateral relations in areas such as education, training, science and technology have also been further developed, thus basically meeting the needs and desires of people of both countries.

There are numerous ongoing business projects in Vietnam that are performed by Korean firms and public organizations in various fields. How have their performances been evaluated in your country?

As of 20 October 2012, there are over 3,134 projects being invested in by more than 2,500 Korean companies in various localities in Viet Nam. Their performance have been considered highly successful and helpful in the following aspects:

Firstly, Korean companies have invested in areas the most important for Vietnam's economic development, such as industrial production, infrastructure development (roads, highways, bridges, power plants, water supply, urban development, residential areas), and human resource development.









Secondly, Korean companies have contributed greatly to Vietnam maintaining its high GDP growth rate.

Thirdly, Korean companies have contributed to strenthening socio-economic development in terms of expanding exports from Viet Nam to international markets, increasing budget revenue through taxes, employing over 500,000 Vietnamese workers, and contributing to various social and humanitarian activities in Viet Nam.

Lastly, according to international market evaluation organizations, Korean companies are considered very successful in Viet Nam and have enjoyed the highest profit rates there in comparison with companies from other countries. Korean companies' efficient performances, impressive achievements and significant contributions to the country's socio-economic development are appreciated by the Vietnamese government and its people.

What do you think are the most promissing areas in which Korea can make the best of its participation in your country?

Vietnam is in the process of expediting its industralization and modernization so as to basically become a modernoriented industrialized country by 2020. Korea, as an industrially-developed country with high technologies, rich financial resources, miraculous development experience, and highly effective management skills, has a lot to offer.

The most promissing areas in which Korea can make the best of its participation in Viet Nam can be seen from the country's objective to become a modernoriented industrialized country by 2020. In the economic field, we must combine the strong economic, financial and technological potential of Korea with the development needs of Viet Nam, particularly in the following areas:

(i) Infrastructure: which includes both hard and soft infrastructure. In terms of hard infrastructure, Korea can participate in the construction of roads, highways, bridges, seaports, airport, power plants, and water processing and supplying systems. In regards to soft infrastructure, Korea can take part in the improvement of governance, human resource development, capacity building, improvement of socio-economic infrastructure, and scientific and technological development. All this infrastructure is badly needed by Viet Nam over the next 10-20 years. Along with investment in the forms of FDI and ODA, Korea can also effectively cooperate with Viet Nam in public-private partnership (PPP), which is strongly encouraged by the Vietnamese Government.

(ii) Supportive industries: Korea has already established various basic industries in Viet Nam, such as automobile, audio-visual, computer, and mobiphone. One of the urgent needs of Viet Nam is to develop supportive industries to those basic industries so as to achieve the goal of localization of products. The Vietnamese Government has issued various incentive policies to develop supportive industries, such as free advertising on the websites of the Ministry of Industry and Trade and Provincial Departments of Industry and Trade, the favourable provision of land use and bank loans, financial support to investment and trade promotion activities, and import and export tariffs concession, etc.

(iii) Green growth: Viet Nam is Korea's strategic partner in green growth and Korea has been committed to its cooperation with Viet Nam in this area so as to ensure the harmonous combination of fast economic growth and effective environment protection, as well as to successfully cope with climate change

which is becoming an increasing challenge for costal countries such as Vietnam and Korea. Viet Nam encourages cooperation in the development of environment-friendly technologies and industries.

As Ambassador of Vietnam to Korea, are there any particular requests or expectations you would like to share during your stay in Korea?

First, I have a deep admiration for the Korean Government and its people for their miraculous development over a relatively short period of time. Throughout itheir 5,000 year history, the Korean people have well preserved their cultural identity, national traditions and language. Korea has successfully turned itself from a poor agricultural, backward country devastated by war into an industrialized country in a very short period of time and is now enjoying an increasingly high position in the world. Korean people are generous, ready to share with developing countries their development experience, promote investment and grant ODA assistance. I would like to see the Korean development miracle become more widely-known in developing countries as an example for them to develop their respective economies.

Second, Vietnam and Korea share a similiar history, cultural traditions and values, especially the common objective of building prosperous, happy countries in a peaceful, stable environment. The two countries also share a very special relationship, with there being over 50,000 Korean-Vietnamese families. All those factors have bound Viet Nam and Korea together in a special relationship - strategic cooperation partnership. The two countries must by all means strengthen their friendship and cooperation so as to serve their common objectives.

I expect and strongly believe that this special relationship, imbued with warm sentiment and shared interests. will be respected, maintained and further developed by the present and future generations of both Vietnamese and Korean people. @









KUMHO ASIANA GROUP

Untiring Affection

Kumho Asiana Group's social contribution activities are reaching the whole of Vietnam

Nguyen Minh Hong, a 21-year-old girl majoring in clarinet performance, entered the National Academy of Music in Hanoi last year as top of her class. Coming from a small mountain village in northern Vietnam, she had had to borrow instruments for no less than 10 years because of her family's poverty. Her dream was to have her own clarinet and represent Vietnam

One day last year her dream came true all of a sudden when Kumho Asiana Group chairman Park Sam-ku visited Hanoi in person to surprise her with a clarinet. In addition, he promised to pay her all her tuition fees until graduation. Also in 2012, the chairman presented scholarship certificates at the 6th Kumho Asiana Scholarship Award Ceremony held at L'Espace in Hanoi. A total of 137 Vietnamese college students received scholarship certificates, including Nguyen Minh Hong, allowing them to study without money worries.

In the ceremony, Chairman Park also gave donations to Hoang Thi Van, a scholarship student attending Hanoi Medical University. Van has never fallen out of the top five percent in class despite also providing for a father with terminal liver cancer and sister suffering from heart disease. Kumho Asiana has promised Van it will pay all hospital bills as well as the scholarship.

The Kumho Asiana Group set up the Kumho Asiana-Vietnam Scholarship & Cultural Foundation back in 2007 as a part of its corporate social responsibility activities. Its subsidiaries, including Kumho Tire, Kumho E&C and Asiana Airlines, invested a combined US\$2 million to set up the foundation, which has provided full scholarships to local students, and is one of the largest of its



The Kumho Asiana Group set up the Kumho Asiana-Vietnam Scholarship & Cultural Foundation back in 2007 as a part of its corporate social responsibility activities

kind in Vietnam.

The chairman's love for Vietnam is truly great. In April last year, he received a report about an employee being injured at work and immediately ordered he be brought to Korea for medical treatment. The company and Severance Hospital saved the employee from quadriplegia and helped him return to his country four months later.

The Kumho Asiana Group has actively conducted business in Vietnam since 1993, when Asiana Airlines first began to service Ho Chi Minh. Kumho Tire, in the meantime, has run cuttingedge tire manufacturing and natural

rubber processing plants in Binh Duong Province since 2007 and 2008, respectively. These tires have been exported around the world and the group is planning to establish another tire factory at a cost of US\$91 million. Once the new plant is completed in 2013, Kumho's tire manufacturing capacity in Vietnam will increase by 2.35 million units to 5.6 million units a year.

At the same time, Kumho E&C is changing the skyline of Ho Chi Minh as a leading global builder. The mixeduse apartment Time Square, which was completed in February this year, is one of the city's representative buildings along with the Kumho Asiana Plaza built in 2009. More recently, is the company has been constructing a sewage treatment plant in Nha Trang at an investment of US\$21.59 million. Asiana Airlines, on its part, served Ho Chi Minh in 1993 for the first time and has expanded its services to Hanoi, Danang, and so forth since then. It currently has the largest number of flights in Vietnam among Korean airlines. @







Based on the view that the global urban population will keep growing and accordingly demand for new cities will rapidly rise until the year of 2050, the government has been establishing strategies for commercialization of high technology and experience of the Korea Land and Housing Corporation (LH) in order to participate in overseas urban development markets. As a result, LH's "Overseas Urban Development Supporting Center was established in October last year, playing a big role as a supporter for overseas construction projects.

The Overseas Urban Development Supporting Center's main tasks are to provide information collected through its independently-managed information networks, explore new business opportunities through establishment of strategies for tapping into overseas urban development markets, and carry out many kinds of supporting jobs for overseas urban development projects including providing job training for foreign government employees.

As a way of systematic and strategic market approach, the center makes research on the related business models and data, selects target countries that can easily accept Korea's urban development technology and know-how, establishes specific strategies, and enters into the consulting process.

Among the target countries are Vietnam, Myanmar, Indonesia and others where brisk urbanization is under **KOREA LAND AND HOUSING CORPORATION (LH)**

"LH Wind" Blowing across Vietnam

The national land developer has shared its know-how and experience on various types of Korean new city development projects with Vietnam

way with lots of population, per-capita national income of US\$ 3,000 to 5,000, and affluent natural resources. In particular, Vietnam has shown relatively high economic growth rates at a late 5% level for the recent five years in spite of general downward trends in exporting, industrial production and foreign investment amid the global economic recession as well as uncertainties in its financial market caused by imbalanced foreign exchanges. Vietnam shows much interest in Korea's new city projects and housing supply plans for lowincome families.

In this regard, LH invited Vietnamese public servants and government agency officials, and provided training about "urban and housing policies" and "historical and cultural cities" last year.

This event proceeded for 17 days from June 10 to June 26, 2012. LH provided the Vietnamese middle- or higherranking public servants and related agencies' researchers with lectures on 10 subjects such as "Korean urban planning," "procedures and techniques for development of new cities," "housing policies" and "public housing supply plans."

In connection with the "Improvement Project of Master Plan for Development of Hue, Vietnam" proceeding as part of the Korea International Cooperation Agency (KOICA)'s Official Development Assistance (ODA) projects, LH provided Hue's municipal government officials with educational programs for strengthening the urban planning capacity for Vietnamese historical and cultural cities three times for totally 21 days from May to June

last year. The Vietnamese officials had opportunities to visit Korea's major historical and cultural cities such as Seoul, Suwon, Buyeo, Gongju and Gyeongju. LH helped them understand Korea's planning and conservation examples of historical and cultural cities.

Though this kind of training, LH shared its know-how and experience on various types of Korean new city development projects with Vietnamese people. It expects to come up with practical solutions to the Vietnamese housing and city development problems through comparative analysis and research on the Hanoi Metropolitan City Development Plan, and successfully proceed with the Vietnamese urban development project.

From November to December last year, about 30 Vietnamese representatives from four government agencies the Development Strategy Institute, the Land Administrative Office, the Stateowned Property Management Department in the Ministry of Finance, and the Urban Development Department in the Ministry of Construction - visited the Overseas Urban Development Supporting Center in Korea. They learned Korea's new city development cases and shared much information on land compensation deals for development of new cities, related laws and regula-

The Overseas Urban Development Supporting Center will try hard to figure out the overseas urban development market trends, create new trends in urban development, promote Korean standard city development, and make research on efficient business models.











Samyang Group represents more than the food industry alone. To bring forth enriched living in every facet of life, Samyang's role extends to chemicals and even pharmaceutical.

From the innovative chemical materials and to the anti-cancer drugs that will bring hopes to millions, Samyang Group's efforts to build an enriching future for mankind progress onwards, Please check if you ever come across such meaningful innovative materials. Behind the creations just might be the Samyang Group













Trade Surplus of Component Industry Exceeded US\$90 Billion for the First Time

The Ministry of Knowledge Economy announced on January 17 that the domestic component industry's trade surplus increased by US\$4.2 billion from a year earlier in 2012 to reach US\$91 billion.

Both the sector's exports and imports fell slightly when compared to 2011, to US\$253.4 billion and US\$162.5 billion due mainly to the European financial crisis and the slowdown of the Chinese economy. Nevertheless, the surplus increased to distinguish itself from the other sectors.



The ministry mentioned an increase in the export of transport and general machinery components following the KORUS FTA as the reason for the surplus growth. The component exports and imports to and from the United States added up to US\$22.8 billion and US\$18.4 billion, 6.9% and 2.2% up year on year, respectively.

The export of electrical and mechanical components showed some increase as well with ASEAN member countries making more and more investments in social overhead capital. The exports and imports to and from the region grew 6% and declined 6% each to US\$32.7 billion and US\$13.7 billion.

In the meantime, the IT component exports and imports fell 1.8% and 2.7% from a year ago to US\$97.5 billion and US\$55.1 billion. "The export of display components increased a little bit last year due to the increasing popularity of LCD TVs in emerging markets, but the overall exports somewhat declined with the PC demand and the unit prices of memory semiconductor chips on the decrease," said the ministry.

Samsung Electronics Established New Business Unit to Repeat Success Story of Galaxy S Series

Samsung Electronics concentrates on emerging devices such as tablet PCs and connected cameras to turn them into its key products. To this end, it has recently set up a dedicated business unit in its US subsidiary and set a sales goal of US\$2 billion for this year. It is quite rare that a global electronics giant groups wireless communications devices other than smart phones into a single product family for market creation.

Samsung Electronics opened the Wireless Terminal Emerging Business Division on January 15 at its US subsidiary located in Dallas. The newly established division is going to be in charge of the sale and marketing of non-smart phone gadgets in the American market, including tablet PCs and connected cameras like the Galaxy Note 10.1 and WB250F. The company is currently looking for someone to head the division.

"The business unit's role does not stop at the sale of products but covers localization R&D and product concept planning as well," said an industry insider.

Samsung Electronics Steps up Efforts to Protect Confidential Information

Samsung Electronics, while in the process of developing a nextgeneration smartphone, has entered into a series of non-disclosure agreements (NDA) with its subcontracts. The aim is to prevent the leakage of information related to its new products amid intensifying patent competition with Apple over design and product specification.

According to an industry source on January 13, the Korean electronics giant recently signed NDAs with both old and new subcontractors clearly stating amounts of compensation in the range of hundreds of millions to billions of wons. A key part of those agreements is the demand for prevention of information leakage regarding Samsung's new products under development.

Amounts of compensation differ depending on the size of damage incurred to the Korean firm as a result of disclosure by a subcontractor. A small damage resulting from media exposure would lead to compensation amount as specified in the NDA. A subcontractor which divulged highly confidential information such as core specification, functions, and the timing of release will be obliged to pay the full amount of damage to Samsung.

One source familiar with the industry said, "Samsung Electronics signed an NDA specifying compensation of up to 1 billion won with a subcontractor," adding "Though the amount of compensation is not much different from the one under a typical NDA, the deal gave added focus to items related to information security."





LCD Panel Suppliers Busy Keeping Up with the Popularity of UHD TV

As major TV makers have expressed their plans to launch ultrahigh definition (UHD, 3840x2160) TVs, LDC panel suppliers are getting busy. Demand is not an imminent rush, yet. However, as UHD is emerging as one of the mainstream TVs, the LCD panel market is forming a competitive structure of its own.



According to industry sources on January 14, LCD panel manufacturers from Korea, Japan and Taiwan will soon start mass production of UHD panels in different sizes.

LG Display, which started mass production of the world's first 84-inch UHD panels last year, now plans to produce 65-inch and 55-inch UHD panels from the second half of this year. LG Display's 84-inch panels are used not only by LG Electronics and Sony but also by China's Hisense and Konka.

Samsung Display also started mass production of 85-inch UHD LCD panels. Because UHD has become an issue in line with the popularity of large size TVs, Samsung is not convinced about middle-or-less size panels yet.

While Korean firms have been focusing on 80-inch or larger size panels, Japanese and Taiwanese firms have paid attention to a little smaller ones.

Japan's Sharp is betting on 60-inch and 70-inch UHD panels. Taiwanese firms are bending all their energies on 50- to 60-inch UHD panels. Chimei Innolux (CMI) already started mass production of vertical alignment (VA) type 65-inch UHD panels. And AU Optronic (AUO) plans to enter into mass production of 65-inch and 55-inch UHD panels soon.

Module Outsourcing Emerging in LCD Panel Market to Accelerate Business Model Diversification

Samsung Display and LG Display have recently assigned the production of modules and touch screen panels to backlight unit (BLU) manufacturers for some of their models supplied to Nokia and Motorola. Under the circumstances, the panel makers' partner firms are obtaining mobile phone manufacturers' vendor certification.

Once they pass the authorization procedure, the BLU manufacturers can supply their products directly to hardware makers. The new supply method is limited to only a handful of models since the compatibility between liquid crystal cells and BLUs is very important. Cell phone makers are planning to receive the supply mainly from existing panel makers, too.

Industry experts are predicting that LCD panel companies are going to concentrate on the production of cells while the assembly of the other parts will be handled by hardware makers or firms specialized in the process.

As business models are diversified, all-in-one components are expected to come out one after another to reduce the thickness and the number of components.

Mobile Ad Market Shows Lagging Growth Even Before Getting Big Enough

It is projected that the nation's mobile advertising market growth will drastically slow down. That is because mobile ad unit prices keep at a too low level and mobile ad CTR is sharply decreasing.

According to a recent research for the mobile ad market growth conducted by the US-based global market research firm "eMarketer," the Korean mobile ad market grew 40% last year on a year-on-year basis. But the market size will grow 20.5% at best this year and the growth rate will go down to a 15% level next year, predicted eMar-

The Korean mobile ad market falls behind one third of the global market average (105.8% increased last year and 61.6% projected this year). The US market is projected to grow 220% this year and 81.4% next year, and the Chinese market 138% this year and 100.5% next year.

Mobile ad unit prices have come down because the number of ad-sponsored applications has rapidly increased but ad supply hasn't increased enough. Particularly, compared to the Googledominated US market, there are too many players, such as mobile carriers and portal service providers, participating in the Korean mobile platform market, which accordingly results in fiercer competition and price plunges.



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INDUSTRY TREND

Chinese Smart Phone Manufacturers Making Inroads into High-end Market

Chinese smart phone manufacturers such as ZTE and Huawei are coming up with high-end handsets to get on the nerves of Samsung Electronics, the world's top smart phone maker.

The Chinese makers, which have increased their presence in the mid-end market, are releasing an increasing number of high-performance models these days. Though they were labeled as fake product manufacturers as recently as two to three years ago, now they are at the center of hardware innovation by providing quad-core phones with a 1.5GHz

> application processor, full-HD display panel, 1.3 megapixel camera module, etc.

Their rapid growth is attributed to the so-called China Inside strategy, which can be defined as a closeknit cooperation among the industry, academia and government for the domestic production of smart phone components. They are producing even key semiconductor and display components on their own nowadays.

The China Inside strategy has been possible because of Taiwan's technological strength. As recently as several years ago, Chinese manufacturers had almost no technology base to make smart phones. However, MediaTek in Taiwan began to supply them with standardized APs and telecom chips to give a boost to their growth.

At the same time, Chinese who studied in the United States are returning to their country as of late to enhance the technological strength while companies expanding technical cooperation with fabless firms, colleges and research institutes abroad. Lenovo, the second largest smart phone manufacturer in China, has recently declared with full confidence that it will beat Samsung Electronics and dominate the global market.





Taiwan is poised to dominate the tablet PC and laptop display markets ahead of Korea with its G2 touch panel developed on a commercial scale.

Taiwanese touch screen panel makers such as CPT, TPK and Wintek have increased their production capacity since the release of Windows 8 and latest tablet PCs. In contrast, Korean companies are having difficulties raising the product quality and production yield. Under the circumstances, they are concerned about losing the market leadership with display panels absorbing the function of touch screen panels.

According to industry sources, G2 touch panels manufactured by Taiwanese companies have recently been adopted by Amazon's Kindle Fire, Google's Nexus 7, etc. They are increasing the supply of their products for Windows 8 laptops, too.

They have stepped up their investment in G2 panels since the latter half of 2012. The oldest of them such as TPK and Wintek are producing G2 panels through third- and fourthgeneration lines while late starters are doing so on fifth- and sixth-generation lines. Taiwanese manufacturers are eyeing on the Korean market as well benefiting from the economy of scale effect. Even Samsung Electronics and LG Electronics are mulling over adopting their G2 panels.

Meanwhile, Korea is rather slow at putting a G2 panel to commercial use. Though LG Electronics applied it to a smart phone last year, the production yield is still insufficient. Samsung Electronics is going to adopt it in the latter half of 2013 at the earliest for some technical problems. It has turned back to G1F touch panels instead.









LG and Samsung **Involved This Time in** "Galaxy Note 10.1" **Patent Lawsuits**

LG Display filed an injunction suit against Samsung Electronics, claiming that the Galaxy Note 10.1 had violated its patents and thus be banned from production.

It is a counter-offensive against the lawsuit brought up by Samsung Display on December 7, when the company claimed that LG Display and LG Electronics had infringed upon its LCD patents. At present, those companies are engaged in a total of six lawsuits against each other, including the criminal suits concerning technological theft.

LG Display announced on December 27 that it filed for an injunction with the Seoul Central District Court to halt the production of the Galaxy Note 10.1 and some other products because Samsung Display had used its patented in-plane switching (IPS) technology. The complaint reads, "We've used the IPS technology in our TV, monitor and other products since 1996 for the horizontal alignment of liquid crystals while Samsung has employed vertical alignment but Samsung, at this time, violated three of our IPS patents for tablet PC manufacturing." It added that the Galaxy Note 10.1 should be banned from production or transfer, the violation of which should be subject to damages of one billion won a day.



Samsung Electronics Placed 2nd in 2012 US Patent Assignees Ranking

IBM stands first in the ranking of US patent assignees of 2012, which marks its 20th consecutive appearance as the front runner.

Bloomberg quoted IFI Claims Patent Services, the leading producer of global patent databases and analytic solutions, on January 10 (local time) as saying that IBM received a total of 6,478 patents in 2012, about a 5% increase from a year ago.

IBM is followed by Samsung Electronics (5,081 patents) and Canon (3,174 patents). Samsung Electronics and Canon increased the number of patents by 4% and 12%, respectively, on a year-on-year basis. Sony comes in fourth, recording a staggering 33%

increase in patent production over the previous year. Among the top 10 patent assignees, three are from the US and the rest from Asia, said IFI.

Among the top 50 patent assignees are a total of five Korean companies included; Samsung Electronics (2nd), LG Electronics (10th), SK Hynix (43rd), Electronics and Telecommunications Research Institute (ETRI), and LG Display (50th).

Japanese companies account for the largest part of the top 50 patent assignees. Among the top 50 assignees are 19 from Japan, 17 from US, 5 from South Korea, 2 each from German and Taiwan, and 1 each from Netherlands, France, China, Canada and Sweden included.

Global IT Giants Scrambling for New Patents through R&D and M&A

Global IT companies are bending over backwards to secure patents with Samsung Electronics and Apple being engaged in long and tedious patent lawsuits. The trend is applied to Internet companies like Amazon and Facebook as well as manufacturers worldwide.

In the meantime, Samsung Electronics had acquired about 3,000 new patents each year between 2008 and 2010 but increased the sum to 4,960 in 2011. It amounted to 3,973 last year as well even though the company shifted its focus in that year from quantity to quality of the new patents. LG Electronics was found to have obtained 1,000 to 1,300 patents each year from 2009 to 2012.

Amazon and Facebook are following the same trend, too. The number for the former increased from 100 to 132, 172 and 217 between 2009 and 2012. Facebook had obtained only one new patent in 2009 but the annual total increased to 23, 27 and whopping 1,099 during the three most recent years.

The same trend is found in terms of the number of new patents obtained through M&A. Apple had purchased about 100 patents a year until 2009 but it soared to 314, 260 and 651 in the following years and Google and Samsung Electronics bought no less than 2,650 and 1,184 patents each in 2011. The numbers dropped to 443 and around 192 in 2012, implying that both companies concentrated their purchase before their lawsuits against Apple.

The ratio of purchased-to-total patents was especially high for Apple, Google and Facebook. The percentage was 49.6% for Apple, 66.3% for Google, 96.0% for Facebook, 10.8% for Amazon and 63.9% for HTC. Meanwhile, Samsung's and LG's were rather low at 6.8% and 3.1%, respectively.





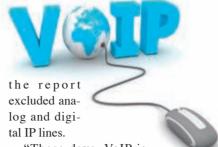


Korean VolP Equipment Market Surpassed 240 Billion Won Mark in 2012

It has been found that the Korean VoIP equipment market reached 240 billion won in sales last year.

According to a recent report of IDC Korea, the market size increased 9.7% from a year earlier in 2012. The market research firm predicted that the annual average growth rate would amount to 5.4% for the upcoming five years to increase the market size to approximately 285 billion won in 2016.

The report included VoIP terminals and private branch exchanges (PBX) in the category of enterprise VoIP equipment, dividing PBXs into hybrid and pure IP-PBXs. The hybrid IP-PBX in



"These days, VoIP is in high demand by many organizations for its merits like convenient management, scalability and operating cost reduction following all IP networking," said Kim Min-chul, senior researcher at IDC Korea, continuing, "The industry is shifting at a rapid pace from PSTN wired phone to VoIP."



Koreans Distinguishing Themselves in Global **Telecom Industry**

Korean telecom industry figures are expected to continue to stand out in the global telecommunications market. Last year, many of them assumed important posts in major industrial organizations the world

For example, SK Telecom vice president Byun Jae-wan, who is heading its corporate R&D center, was elected chairman of the

Next Generation Mobile Network (NGMN) in November. He is going to launch various projects and activities this year to turn many technologies developed in Korea into global standards. SK Telecom is slated to join the international organization as a board member for the third consecutive session, too.

In the meantime, KT's former executive managing director Yang Hyun-mi became the chief strategy officer, the second in the pecking order, of the GSM Association last year. The GSMA is one of the largest international bodies in the telecom industry, joined by approximately 800 operators in 220 or so countries. Its leadership positions have been dominated by Europeans.

However, SK Telecom president Ha Sung-min and KT chairman Lee Sukchae are taking part in it as two of the 25 board members from this year to raise the international standing of Korea in the industry. "The GSMA Board of Directors is where the direction of the global telecommunications industry is determined," said an industry insider.

Lenovo Aiming to Overtake Samsung Electronics in Global Smart Phone Market

Lenovo, the world's largest PC manufacturer, is aiming to increase its presence in the global smart phone market. It is planning to beat foreign rivals such as Samsung Electronics in its home turf first and then target the global market just like it has done in the PC industry.

On January 7, Bloomberg and CNET announced that Lenovo divided its business sales organization into two groups, Lenovo and Think. The former will be in charge of PC, laptop, tablet PC and smart phone sales while the latter handles B2B business covering enterprise and workstation solutions. The company acquired the Think brand back in 2005, when it took over the PC business unit of IBM. Lenovo has grown rapidly in the Chinese PC market building on the brand since then, overtaking HP last year to become the global number one in both shipments and market share.

Lenovo Chairman Yang Yuanqing recently said at an interview with Xinhua News Agency that his company would surpass Samsung Electronics in the smart phone market as well. To this end, it invested US\$790 million in its mobile device manufacturing plant in Wuhan, Hubei Province scheduled to be completed this year.

At present, Samsung Electronics is accounting for 14.2% of the Chinese smart phone market, followed by Lenovo (10.4%) and Huawei (9.5%).











EDA Firms Opening R&D Centers in Korea One after Another

Electronic design automation (EDA) tool developers are opening research and development (R&D) centers in Korea one after another.

Mentor Graphics Korea (Country Manager Yang Young-in) is preparing to open its R&D center in April this year. It wishes to boost its share to 20% in the domestic placement and routing (P&R) market which is almost dominated by Synopsys Korea.

The leading EDA firm Synopsys Korea (Country Manager Chung Heasoo) already opened its R&D center in mid last year. Synopsys Korea is at a dominant position not only in the P&R sector but also in the overall technology computer aided design (TCAD) sector. In particular, considering more than half of its tools are used by Samsung Electronics, Synopsis is in need to reinforce its customer support.

The main reason that they are strengthening R&D function is because Samsung Electronics is taking the lead in the foundry process as well as the memory semiconductors so that they have to promptly support the leading technologies. Besides, as some domestic large firms including LG Electronics, SK Hynix and Hyundai Autron are entering into the system semiconductor business, it is expected that the Korean market will expand to a great extent.

USTR Imposing Trade Pressure Regarding Publicsector Purchase of Communications Equipment

It has been found that the United States has called upon the Korean government periodically to revise public agencies' telecom equipment procurement guidelines. A de facto trade pressure, it is causing a stir in the industry.

According to industry sources, the United States Trade Representative (USTR) has recently urged the Korean government to revise the IT and networking equipment operation guidelines of the Ministry of Knowledge Economy, claiming that those went against the WTO's Government Procurement Agreement. The USTR had made a similar demand back in 2011,

The purpose of the guidelines is to address such wrong practices as a preferential price, the purchase of inappropriate equipment due to the lack of expertise of evaluators and below-cost tendering. Those were enacted and recommended by the ministry in December 2010. According to the guidelines, the ministry and its affiliated public agencies are to go through the deliberation committee to review the requests for proposal when purchasing IT equipment worth at least 0.3 billion won and the committee is to apply a technology assessment point of 90%, instead of 80%.

"The assessment point is tailored to small businesses in Korea and thus non-Korean vendors are deprived of their chance to enter the market," said the USTR in its official correspondence sent this month, adding, "Since the guidelines may violate the WTO GPA, the Korean government will have to take necessary measures for transparent evaluation in the procurement market based on the WTO rules and KORUS FTA." The Ministry of Knowledge Economy said in response, "We replied that the guidelines are in compliance with the WTO rules and Korean small businesses are receiving no preferential treatment."

Samsung Electronics Faring Well in Japanese Smart Phone Market

Samsung Electronics broke the US\$2 billion in sales in the mobile phone market of Japan for the first time in its history. Its achievement is truly remarkable in that few companies have been successful in the market with extremely high entry barriers.

The electronics giant announced on January 3 that its feature phone and smart phone sales in Japan surpassed US\$2 billion in 2012. The sales of the Galaxy S3 topped one million units in six months from its debut and those of the Galaxy Note 2, released in October, have reached 400,000 units in just a quarter. The sales volumes are almost one-half of the quantities in the Korean market.

Samsung Electronics overwhelmed the other mobile phone manufacturers as a seller of NTT Docomo smart phones, too. The Galaxy S2 had become the first millionselling phone of Samsung in 2011 and its follow-up model S3 topped the monthly sales chart upon coming into the market in June 2012. The Galaxy Note 2 swept the chart as well in October. NTT Docomo is the largest mobile operator in Japan.

At present, Samsung Electronics is in a fierce competition with Apple for the number one spot in the Japanese smart phone market. The former ranks fourth or fifth in the mobile phone market including the feature phone segment.







TELECOMMUNICATIONS

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Number of Subscribers to NHN's Line to Surpass 100 Million, Making a Leap into Global Service



The number of subscribers to Line, a mobile messenger offered by NHN, is due to reach 100 million on January 18, the biggest number ever for a Korean Internet service. It is safe to say that the service marks the first global success story in the field of Internet, which is usually powered mainly by domestic demand.

According to the firm, the number of subscribers as of afternoon of January 17 is approximately 99.50 million. Given the current trend in which

400,000 people sign up for the service daily, the number will surely surpass 100 million by afternoon of the following day, which would be a memorable feat in one and a half year after the service kicked off in June of 2011.

The 100 million mark becomes possible only because the service has become popular not only domestically but also internationally. Currently, Japan ranks No. 1 in number of its subscribers by country. Its popularity has spread from Southeast Asia, such as Thailand, Taiwan and Hong Kong, to Europe, including Spain, and the Middle East.

The 100 million milestone holds great significant for the firm in that it would help it solidify its position as a global service provider and create an ecosystem. Facebook began building so-called "Facebook Ecosystem" around 2008 with a series of star social-game developers such as Zynga sprouting up. Facebook, which initially had taken four years to secure 100 million subscribers, saw its membership increased dramatically over the past four years, to 1 billion last year.

Telecom Operators Building Nationwide Multi-carrier Networks

The three local telecom operators establish nationwide networks before the end of this year to shore up their multi-carrier LTE services by means of secondary frequency.

Though the pace of the project depends on market situations, such as how rapidly the number of subscribers increases, they are planning to cover 84 cities across the country within this year. The expansion of the multi-carrier networks is to deal with the skyrocketing mobile data usage of LTE subscribers. It also allows for Carrier Aggregation, the core LTE-Advanced technology scheduled to be commercialized in the latter half of this year.

Under the circumstances, another variable is the Korea Communications Commission's allocation of additional 1.8GHz and 2.6GHz frequencies. Once the broadband service becomes available in the new frequency bandwidth, multi-carrier network expansion can be accelerated.

Inexpensive Smart Phones Hit Korean Market

Smart phones as inexpensive as 100,000 won or so are put on the market one after another.

The idea is to target mid-market customers with the blacklist system establishing itself and the number of people using mobile virtual network operator (MVNO) services being on the rise. Increasing attention is being paid to whether mass-market smart phones will be able to pull through in the Korean market dominated by high-end ones.

iRiver released the iRiver ULALA (model number: I-K1) on January 10 at a consumer price of 148,000 won. Another smart phone of a similar price is slated to be launched by UTCOM in China in the first quarter.

Samsung and LG Electronics' handsets released in overseas markets are imported, too. Expansys Korea recently started the sale of the Galaxy Pocket (123,000 won) and the Optimus L3 (137,000 won).

The low price smart phones are appealing to many consumers as MVNOs are expanding their services. Their package plans are attracting consumers who are unwilling to pay much for the telephone bill.







Fairchild Will Foster 8 Inch Fab in Korea as Strategic Base for Mobile Solutions

A leading global supplier of high performance power and mobile products "Fairchild Semiconductor" revealed its intention to foster its 8 inch fab in Korea as a strategic production base. Trying to move the center of business structure from industrial high-voltage power semiconductors to mobile analog solutions, Fairchild has set a strategy to have a core base in Korea.

"We have mobile solutions accounting for 25% in total sales now, but the proportion will go up to 50% in three to five years. To accomplish this goal, we will



take full advantage of our Korean fab," said Mark Thompson, CEO of Fairchild Semiconductor, in an exclusive interview with Electronics Times at CES 2013 in Las Vegas.

Fairchild Semiconductor was founded in 1955. This company is well known as the world's first supplier of commercial integrated circuits (IC). And it is ranked first in the global high-voltage power semiconductor market. Now it will transform itself to a mobile-centric enterprise supplying all kinds of semiconductors used for smartphones, except modems, application processors and memory. Currently, it has about 20 kinds of solutions for smartphones, ranging from RF semiconductor to power management chips, gyro sensor and LED driver.

Korea's Semiconductor Fabrication Technology Adopted as International Standard

A semiconductor processing technology developed by Korea has been adopted as a global standard for the first time. The development of semiconductor fabrication process standards is being led by the United States and Japan these days.

The Korea Semiconductor Industry Association (chairman Kwon Oh-chul) and the Semiconductor Equipment and Materials International (SEMI) announced on January 14 that SEMI E5-0712, the semiconductor equipment communications standard jointly developed by Samsung Electronics, SK Hynix and some other local semiconductor equipment manufacturers, has been adopted as an international standard.

SEMI E5-0712 is a software standard essential for semiconductor fabrication automation. It reduces communication errors when switching fabrication automation equipment.

The KISA has worked on the standardization of next-generation semiconductor equipment and devices since 2008 in the framework of the national convergence technology development project of the Ministry of Knowledge Economy. Though Korea owns the world's finest fabrication technology in the industry, there were no standardization activities before then. SEMI E5-0712 is the first technology developed by Korea among the 850 international standards registered with the SEMI.

Samsung Electronics Dominates System-onchip Market through 14-nm Microfabrication

Samsung Electronics kicks off 14-nm microfabrication of semiconductor devices within this year. Though it was planning to do so in 2014, it has recently moved up the plan allowing for market conditions. The idea is to continue its dominance in the application processor market and give a boost to new business such as foundry and low-power server CPU manufacturing.

Under the circumstances, fabless firms partnering with Samsung such as ARM, Cadence, Mentor and Synopsis are setting up R&D centers in Korea to search for engineers. It has been quite rare that a global fabless company builds an R&D center to cope with a local client. Samsung Electronics is in close cooperation with the four companies for the 32-nm High-K Metal Gate (HKMG) process. 14-nm has a threedimensional FinFET structure and requires design and test solutions different than those for other chips. This is why the role of the fabless companies is critical.

Samsung is planning to focus on the development of application processors using the 14-nm process. The economy of scale can be achieved through the internal supply to the Mobile Communication Division and it is expected to be able to put a brake on competitors like Oualcomm.



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GPS-Based Air Weapon Technology Developed Domestically

A new technology that enables striking an enemy over a mountain during the day and at night using the Global Positioning System (GPS) has been developed domestically, which is expected to produce 312 billion won in economic benefits through import substitution, etc.

The Agency for Defense Development (ADD) announced on January 14 that it had successfully developed a "medium-range GPS-guidance kit," a 500-pound ordinary bomb equipped with GPS that can strike ground targets at a long distance with precision. The kit was developed by a group of 20 subcontractors including the ADD and LIG Nex1 with the Defense Acquisition Program Administration (DAPA) managing the whole process.

The 40 billion won kit was completed early this month after five years and two months of development efforts that began in Nov. 2007. Production kicked off as soon as the kit was developed. As a result, some of those weapons have already been deployed in the military. The ADD equipped the weapons with 5 kinds of fighter jets and completed suitability test as well as a range of airdrop tests.

Not only the kit can strike ground targets based on various operation methods, it also can strike hidden targets.



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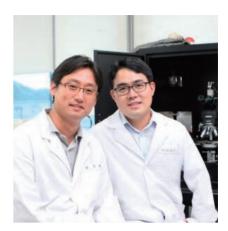
UNIST Develops High-Performance Bipolar Semiconductor Polymer

Ulsan National Institute of Science and Technology (UNIST) has successfully developed a core technology that will advance commercial use of flexible displays.

A research team led by UNIST professors Yang Chang-duk and Oh Joonhak (first authors are Ph.D students Lee Jung-hoon and Han Ah-reum) announced on January 8 that they had finally developed a new bipolar semiconductor polymer with excellent capabilities.

The research feat was published in the latest issue of American Chemical Society (ACS).

The bipolar semiconductor is a technology used to create organic thin-film transistor. It is more shock resistant than inorganic thin-film transistor made from silicon, and can be as thin as a piece of



paper. It also goes through solution process, not vacuum process.

The researchers succeeded in improving mobility of holes and electrons twice as much using a new method called solution shearing. It's a technology used to create a thin film in organic semiconductor by putting shear stress on the upper panel after placing organic semiconductor solution between two panels and applying heat to the lower panel.

Versatile-Shaped Batteries Developed by A Domestic Research Team to Hit Market Soon

A Korean research team has successfully developed a technology to produce versatile-shaped lithium-ion secondary batteries through simple printing process. That would enable manufacturing of a next-generation mobile device whose battery size and design limitations so far have made it difficult to be commercially available.

A research team led by professor Lee Sang-young at Ulsan National Institute of Science and Technology (UNIST) and professor Cho Gook-young at Kongju National University said on January 15 that it had developed original technology for the production of versatile-shaped high-performance, high-safety and flexible lithium-ion secondary batteries. The results were published on the title page in the latest issue of Advanced Materials, an academic journal in the materials field.

After producing nano materials to have the same flow characteristic as grain syrup through which lithium-ion can move, the researchers have created highly-efficient and flexible polyelectrolyte by printing the material onto an electrode like spreading jelly on bread and exposing it to ultraviolet rays within 30 seconds.

The technology would enable direct production of lithium-ion batteries through printing process without separately applying solvent to different-shaped electrode supporting media, including a three-dimensional electrode, as opposed to typically required procedures for the production of liquid and polyelectrolyte.





Samsung and LG Electronics Unveiled World's First Curved OLED TVs

Samsung Electronics and LG Electronics unveiled curved 55-inch OLED TVs on January 8 (local time) at CES 2013 in Las Vegas.

Both of the companies did not mention the product at the press conference of the previous day to surprise the visitors. The competition between LG and Samsung in the next-generation TV market is expected to heat up down the

Samsung Electronics announced that it would release curved and noncurved OLED TVs at the same time in the first half of this year. The former's price is slated to be a little higher than the latter's. LG Electronics, in the meantime, is planning to launch its curved-screen OLED TV ahead of Samsung. LG has already released its OLED TVs in the Korean market.

Both use solid display panels instead of flexible ones for the products. Their curved-screen TVs are characterized by using no backlight for self light emission and adding various features to their previous flat OLED TV sets.



Mocomtech Unveils 3D Theater System at CES 2013

A small company in Korea opens up the American market with its ultralarge screen and 3D theater system producing the same level of brightness as an electronic display board even without using a light source.

Mocomtech (CEO Choi Hae-yong) announced on January 3 that it displays the two products incorporating optical and 3D technologies at the Consumer Electronics Show (CES) 2013 scheduled for January 8 in Las Vegas.

The bright board developed by the company measures 100 to 250 inches in screen size and provides a brightness of 1,600cd/m2 on the screen, which is equivalent to that of an electronic display board using light sources, but the resolution is approximately nine times higher. It consumes 95% less power than an ordinary electronic signboard, too.

Mocomtech has already registered some patents in six countries, including the US and the UK, regarding the products. Its 3D theater system is to build a mini 3D multiplex having 40 seats in an already constructed building. It uses lens-type screens whose brightness and definition are six times higher than those of silver screens of 3D theaters in general.

LG Electronics Rolls Out the World's First 55-Inch OLED TV

LG Electronics has successfully launched the world's first Organic Light-Emitting Diode (OLED) TV, also called "Dream TV."

The company announced on January 2 that it would sell the 55inch OLED TV for 11 million won domestically. That puts the Korean electronics giant in an advantageous position in the next-generation TV market, following its release of the 84-inch Ultra High Definition (UHD) TV ahead of rivals in August of last year.

LG Electronics and Samsung Electronics have fiercely competed against each other to put the product on the market. Now LG gets ahead of Samsung in terms of product

From January 2, its TV will be displayed at a total of 32 locations across the country - 23 department stores such as Lotte, Shinsegae, and Hyundai, eight LG Best Shop outlets, and the LG Cinema 3D smart TV experience store at COEX in Seoul.

Following the launch in the local market, LG plans to roll out the product in major world markets, such as North America, Europe, and Asia in Q1 in a bid to secure a firstmover advantage in the next-generation UHD TV market.









BUSAN

Unforgettable Memories in the Southern Beach

The hub of culture and tourism industry begins at the southern coast city of Busan

usan, the second-biggest city of **B**Korea, has developed itself rapidly into the hub of the culture and tourism industry of Korea. Introduced in the followings are some of the must-see attractions of the city.

Gamcheon Culture Village

The terraced village houses under the foot of a mountain will remind you of a serenely beautiful picture. Having the nickname of Busan's Machu Picchu, the village is strewn with fabulous artworks of local artists. Here you can also find the Picture Gallery, the House of Light and the House of Darkness built under the Miro Miro Alley Project, along many well-known film locations. The village itself, simply put, is a gigantic work of art and tourist magnet. It is going to be fun taking a walk in

the maze-like byways. The village has offered hands-on chinaware-making and natural-dyeing programs while running an art center, receiving a positive response from all over the country.

Gwangan Grand Bridge

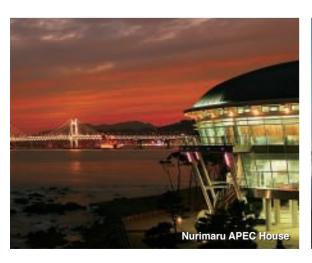
Also known as the Diamond Bridge, this 7.4km-long structure connects the 49th Square of Namcheon-dong, Suyeong-gu with the Centum City shopping mall located in Woo-dong, Haewoondae-gu. It is the biggest overwater bridge in Korea.

The bridge looks especially marvelous after the sun goes down. Then, it is in perfect harmony with the nightscape of the sea and the city. Driving on the bridge, you will find the island of Oryukdo approaching you as if it were just a few steps ahead. Never forget to appreciate the awesome views of Mt. Hwangnyeong surrounding the grand bridge, the sandy beach of Gwanganni, the picturesque Dalmaji Hill and Dongbaek Island.

The bridge's illumination system is one of the finest of its kind, turning the steel structure into a glittering artwork. Every night and every season, it embellishes the bridge with hues of dazzling brilliance.

Dongbaek Island

On the right-hand edge of the wide Haeundae Beach, you can see Dongbaek Island sitting behind the Chosun Beach Hotel. In fact, it is not an island. Though it was separated from the land in the past, the passage of time has piled up sediment to reclaim the sea between the two. It is just that the people are still

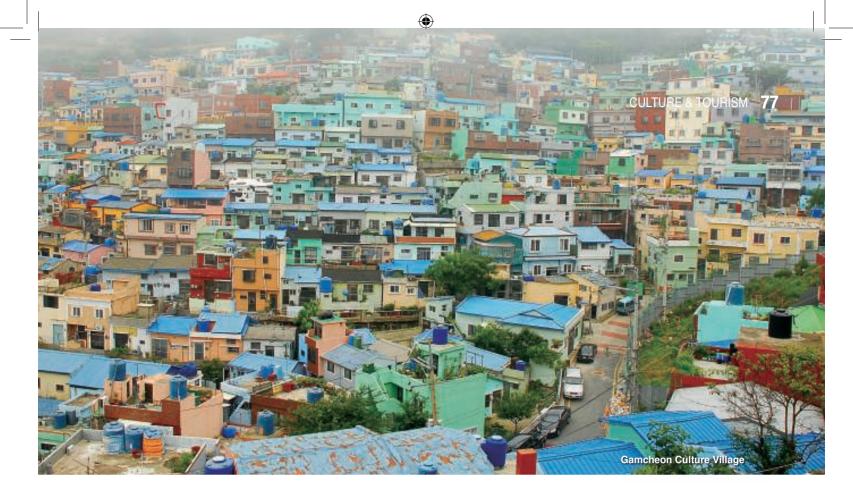












calling it in the name they love.

For a long time, many Korean poets like Sir Choi Chi-won have visited the place to admire the amazing mingling between the sea and the forest. A number of artistic pieces have come down from old days to be enjoyed by many art aficionados.

Currently, promenades are available around it and many tourists are flocking together there to take a nice, refreshing

stroll. Following the trail, you can find the inscription, statue and monument of Sir Choi Chi-won, the statue of the mermaid of the Princess Hwangok's Legend, the Nurimaru APEC House and many more things to see. Also wonderful is the city seen from Dongbaek Island. Here, all of the coastline of the Mipo area, the Dalmaji Hill, the Gwangan Grand Bridge and Oryukdo can be seen in a panoramic view.

Cold Pork Hock Salad

Enjoy Pork Hock and Jellyfish

These days, cold pork hock salad can be enjoyed at many chain restaurants. However, if you want to taste a real, authentic version, you are recommended to stop by a food alley located in Bupyeong-dong, Busan City.

The true taste of pork hock can only be achieved when trouble is taken to cook the fine meat with the delicious sauce. When it comes to calories, a dish of pork hock contains less

than that of a bowl of rice, making it good for weight control. It also contains a lot of collagen, which promotes healthy skin.

Cold pork hock salad is one of its variations, coming with jellyfish, garlic mustard sauce and assorted vegetables, such as cucumber and onion. The pungent sauce will remove the smell and slight greasy feeling of pork hock. You will find the grainy and tart jellyfish fits perfectly with the taste of the pork.

The first word of the Korean name means camellia flower, the abundance of which gave this one-time island the appellation. Between every winter and spring, bunches of the red flowers come into bloom and then fall, making the place even more charming.

Nurimaru APEC House

Since the APEC Summit 2005 was held in the port city, the Nurimaru AEPC House has been synonymous with top-notch conference facilities. These days, it is serving as one of the most typical tourist attractions of the Busan, welcoming an average of 5,000 visitors everyday.

It was modeled after a traditional gazebo of Korea. In the building whose name has the meaning of the top of the world, you can see a lot of pictures of the conference that took place here six years ago.

In the meantime, the APEC Memorial Hall was opened in the site on December 31, 2007 to celebrate the successful hosting of the conference. In the framework of the ubiquitous city project of Busan, the hall is keeping the spill-over effect going while adding to the city's appeal to tourists.









(1)

DANYANG

County of Hidden Treasure

Nearby Namhan River and Chungju Lake Dyed with an Autumn Hue, Reflecting Beautiful Scenery of Mountains

If you want a short yet great getaway, you are recommended visiting Danyang County in North Chungcheong Province. Though an inland area away from the sea, the nearby Namhan River and Chungju Lake offer some beautiful scenery of mountains being reflected on the surface of water. The area is also highly accessible. Regular trains and the Jungang Expressway ensure a convenient journey from Seoul and other major cities. Visit Danyang, where wind, lake and river gather to rest.

Dodamsambong

The first of the Eight Great Views of Danyang, Dodamsambong features three interestingly-shaped rocks rising above the surface of the upper Namhan River which flows across the county. The location's scenic beauty is so particularly spectacular at sunset that Toegye Lee Hwang, a great scholar from the Joseon Dynasty, is known to have extolled it on numerous occasions.

The Korean name Sambong can be translated into Three Peaks. The biggest of these features the hexagonal pavilion of Samdojeong, adding to the gentle calmness of the area. Whether you are a professional photographer or a photo aficionado, you will never grow tired of this location.

Ondal Open Set

If you want to see something unique to Danyang, you are advised to visit the Ondal Open Set located in the Ondal Tourist Complex in Yeongchun-myeon. The 17,000 square meter-site is currently used as a location for Korean historical dramas, e.g., the Kingdom of Wind and the Story of the First King' Four Gods.

You can take as many pictures as you want, while the Ondal Cave, Theme Park, Ondal Mountain Fortress and Ondal Hall will make your trip even more fun.

Gosu Cave

The Danyang Gosuri Cave is a 1,700m-long natural cave that is regarded as one of the most beautiful in Asia. It was designated Natural Monument of the Republic of Korea No. 256 back in 1976.

Once inside the cave, you will be





mesmerized by stalactites and stalagmites of various shapes and sizes. In particular, the Dodamsambong Rocks and Sarang Rocks add to the charming mystique. The stalactites and stalagmites constituting Sarang Rocks grow only approximately 0.1mm a year and so will not come into contact with each other for some hundreds of thousand of years from now.

Chungju Lake Ferry

An another unforgettable memory is welcoming the Autumn aboard a ferry cleaving through Chungju Lake. With the crystal blue sky and lake the same color, you can feel the cool Autumn breeze touching your cheeks, while the colorful Fall leaves surround you.

The ferry travels between the Jangheenaru and Cheongpungnaru docks passing by Gudam and Oksun Peaks. The ferry ride provides passengers with a dreamlike view of Fall. ®



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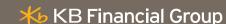
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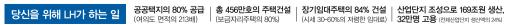




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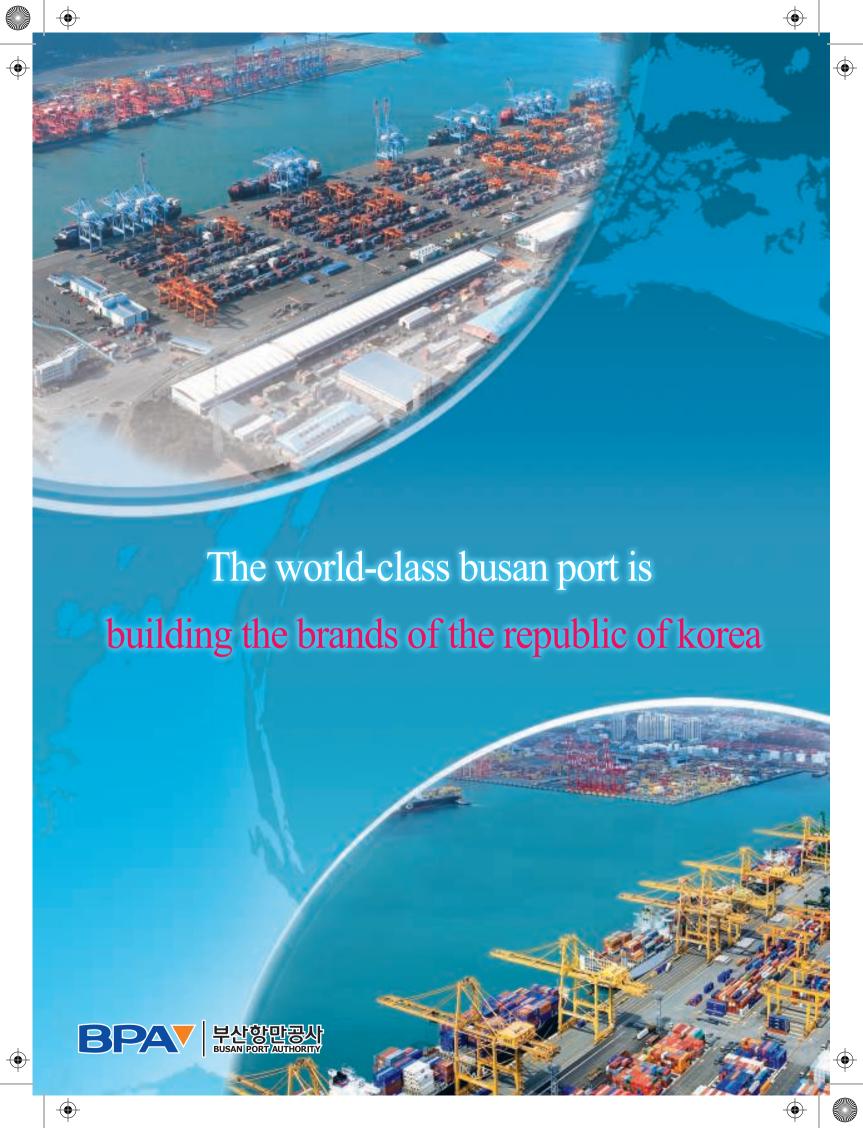












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